THE

AMERICAN JOURNAL

OF THE

MEDICAL SCIENCES.

VOL. I.

SECOND EDITION.

PHILADELPHIA:
CAREY, LEA AND CAREY—CHESNUT STREET.

1828.

Uttarpara Jaikrishna Public Library
Accn. No. 33228 Date 2/12/04

THE

AMERICAN JOURNAL

OF THE

MEDICAL SCIENCES.

COLLABORATORS.

Jacob Bigelow, M. D. *Professor of Materia Medica in Harvard University, Boston.*

Walter Channing, M. D. *Professor of Midwifery and Legal Medicine in Harvard University, Boston.*

N. Chapman, M. D. *Professor of the Institutes and Practice of Physic and Clinical Practice in the University of Pennsylvania.*

John Redman Coxe, M. D. *Professor of Materia Medica and Pharmacy in the University of Pennsylvania.*

William C. Daniell, M. D. *of Savannah, Georgia.*

John Beale Davidge, M. D. *Professor of Anatomy in the University of Maryland.*

Elisha De Butts, M. D. *Professor of Chemistry in the University of Maryland.*

William P. Dewees, M. D. *Adjunct Professor of Midwifery in the University of Pennsylvania.*

S. Henry Dickson, M. D. *Professor of the Institutes and Practice of Medicine in the Medical College of S. Carolina.*

Benjamin W. Dudley, M. D. *Professor of Anatomy and Surgery in Transylvania University.*

Gouverneur Emerson, M. D. *of Philadelphia.*

Thomas Fearn, M. D. *of Alabama.*

John W. Francis, M. D. *Professor of Obstetrics and Forensic Medicine in Rutgers Medical College, New York.*

William Gibson, M. D. *Professor of Surgery in the University of Pennsylvania.*

John D. Godman, M. D. *Professor of Anatomy and Physiology in Rutgers Medical College, New York.*

R. E. Griffith, M. D. *of Philadelphia.*

Robert Hare, M. D. *Professor of Chemistry in the University of Pennsylvania.*

Isaac Hays, M. D. *one of the Surgeons of the Pennsylvania Infirmary for diseases of the Eye and Ear.*

George Hayward, M. D. *of Boston.*

Thomas Henderson, M. D. *Professor of the Theory and Practice of Medicine in the Columbian College, District of Columbia.*

George Holcombe, M. D. *of Allentown, New Jersey.*

William E. Horner, M. D. *Adjunct Professor of Anatomy in the University of Pennsylvania.*

David Hosack, M. D. *Professor of the Institutes and Practice of Medicine in Rutgers Medical College, New York.*

Ansel W. Ives, M. D. *of New York.*

Samuel Jackson, M. D. *one of the Physicians of the Philadelphia Alms-House Infirmary.*

Samuel Jackson, M. D. *of Northumberland, Pennsylvania.*

Frederick G. King, M. D. *of New York.*

William J. Macneven, M. D. *Professor of Therapeutics and Materia Medica in Rutgers Medical College, New York.*

Valentine Mott, M. D. *Professor of Surgery in Rutgers Medical College, New York.*

James Moultrie, Jr. M. D. *of Charleston, S. C.*

James M. Pendleton, M. D. *Lecturer on Midwifery and Diseases of Women and Children, New York.*

Philip Syng Physick, M. D. *Professor of Anatomy in the University of Pennsylvania.*

Wright Post, M. D. *late Professor of Anatomy in the College of Physicians and Surgeons, New York.*

Nathaniel Potter, M. D. *Professor of the Theory and Practice of Medicine in the University of Maryland.*

Thomas Sewall, M. D. *Professor of Anatomy and Physiology in the Columbian College, District of Columbia.*

John Spence, M. D. *of Dumfries, Virginia.*

John Ware, M. D. *of Boston.*

John C. Warren, M. D. *Professor of Anatomy and Surgery in Harvard University, Boston.*

N. W. Worthington, M. D. *Professor of Materia Medica in the Columbian College, District of Columbia.*

ADVERTISEMENT.

IN the August number of the Philadelphia Journal of the Medical and Physical Sciences, it was announced that a new series would be commenced on the first of the ensuing November—and accordingly the Publishers have now the pleasure of presenting to the public the first number of the AMERICAN JOURNAL OF THE MEDICAL SCIENCES.

The design of the work is strictly national. To ensure the proper execution of this design, the Editors have endeavoured to obtain the co-operation of the most distinguished medical men throughout the Union, and in evidence of their success, they appeal with confidence to the list of collaborators, which however contains the names of only a portion of those who have associated themselves in support of the work.

It is believed that a journal established upon so broad and liberal a foundation, will possess many advantages—that it may eminently advance the interests and character of the profession—be beneficial in promoting an interchange of views, and the results of experience, among the great body of American practitioners—and that it will be received as authority, and have a wide circulation, both abroad and at home. The ample means at the disposal of the Editors, will enable them always to select such articles as the exigencies of medical information may seem to require or as may be most interesting, from their novelty or importance.

Arrangements have been made to import regularly from London and Paris every new medical work, and to obtain in exchange almost every medical journal published in Europe. These will be placed in competent hands for analysis or review, and whatever is valuable in their contents shall be laid before our readers as early as possible.

To enable the Editors to concentrate so great a variety of interesting information, it will be perceived that the size of the work is considerably enlarged.

In respectfully inviting contributions from every part of the Union, the publishers refer to the engagements on that head entered into in the prospectus, and now repeat the assurance, that all articles that may be inserted will be liberally paid for.

UTTERPARAH PUBLIC LIBRARY

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES.

ART. I. *Inquiries into the Healthy and Diseased Appearances of the Mucous Membrane of the Stomach and Intestines.* By W. E. HORNER, M. D. Adjunct Professor of Anatomy in the University of Pennsylvania.

THE want of some standard, whereby the healthy and diseased appearances of the stomach and bowels may be distinguished, has been felt, perhaps, by all who have engaged in researches into the pathology of these organs. Though much has been written on the subject, yet the vagueness of the language used by authors, and more especially the great inaccuracy with which they employ the terms representing colours, have opened one of the most extensive fields for disputation, in pathology.

In the numerous post mortem examinations which I have made, both for myself, and my professional friends, I have frequently found that the most opposite conclusions have been drawn from identical appearances in the organs under consideration; and there existed no available experience or authority, by which the correctness of these conclusions could be tested, and the truth determined. These circumstances induced me to institute a series of observations on the gastro-intestinal mucous membrane, and by coincidences entirely accidental, I have been so fortunate as to obtain in a few months a description of information, that in the ordinary current of events might not have been acquired in years.

Three unsettled points present themselves in this inquiry:—1st. What is the healthy condition and appearance of the gastro-intestinal mucous membrane? 2d. What is its appearance in congestion from the agonies of dying? 3d. What is its appearance in genuine red inflammation?

It is necessary in the commencement of this discussion, to settle the signification of the terms used; this I shall do, not in an arbitrary manner, but according to the meaning attached to them in conversation by some of the most sagacious and intelligent physicians of our city. I am forced to depend upon the inferences of conversation, because the definitions of our dictionaries do not decide; indeed the terms are there used promiscuously. Thus for example, PARR, says that congestion is a swelling that gradually arises and slowly ripens, in opposition to that defluxion which is quickly formed, and terminated. In the Dictionnaire des Sciences Medicales, congestion is defined to be a humoral collection which is formed slowly in some part of the body, increases gradually, and finishes by an intumescence of a variable size; the fluids which form it may be blood, serosity, pus, fat, bile, urine, in one word, any of the fluids belonging to the body. It is thus evident that Parr alludes to the sub-inflammation of modern pathology, and that the other has no specific meaning. I now therefore state that by Congestion, I mean an accumulation of red blood in any part or organ of the body, without irritation or mechanical violence; and by Red Inflammation, the accumulation of red blood which follows any local irritation.

1. *Of the Natural Colour of Mucous Membranes.*

When an animal is bled to death the stomach being empty, the mucous membrane of the latter, and of the intestines, is of a yellowish pearl colour, presenting at a short distance the lightest possible tint of pink; and few or no marks of blood exist, even in the large vessels under the peritoneal coat.

Experiment 1*st. April,* 1827.—At a butchery in Spring Garden, a sheep, which had fasted for twenty-four hours, was slaughtered in the usual way, by cutting the throat, and immediately afterwards dividing the spinal marrow in front between the occiput and first vertebra. As soon as life was extinguished we examined the abdomen. The internal membrane of the stomach was of a pearl colour, slightly yellow, approaching to what artists call a light tint of bright brown, and the intestines were almost exactly like the stomach. Neither stomach nor intestines exhibited their blood-vessels, even of the largest size, except very faintly, and there were no red patches in either.

Experiment 2*d.*—Was a repetition of the first experiment, and was followed by precisely similar results.*

---

* These two experiments, or rather observations, were executed by Dr. La Roche and myself in commencement of a joint series, from which, much to my regret, his departure for Europe withdrew him at this point of our inquiry.

If an animal be killed with a full stomach by puncture of the medulla spinalis at its commencement, the mucous coat of the stomach will retain on the surface where the food was in contact with it, a light lake, approaching vermilion, from the detention of blood in its capillary system. The following experiments proved this:—

Experiment 3d, June, 1827, at the University.—A full grown female rabbit of the white kind was fed upon green cabbage leaves. In about three hours afterwards she was killed by pithing with a saddler's awl between the occiput and the first vertebra. Immediately upon the introduction of the instrument, the body was seized with a spasm, the extremities were drawn together and convulsed; the animal gaped two or three times, but there was no inspiration. In five minutes after pithing, the abdomen was opened; the circulation was found by pressure upon the veins to be going on but languidly in the parietes of the abdomen and in the abdominal viscera. I waited five minutes more, when it seemed to be completely stopped.

I then cut out the stomach, laid it open along its great curvature and washed away with a stream of water its contents, which presented the appearance of having been well boiled and bruised. The food would have measured probably about an ounce, and was principally in the left half of the stomach: there was no hour-glass contraction of the latter. The mucous coat of the left half of the stomach was of a uniform light lake, approaching vermilion, without blotches or shades of difference, and firm; but the mucous coat of the right half was almost destitute of vessels or injection, and had the dull pearl colour of the stomachs of the sheep bled to death. The mucous coat of the small intestines was the same colour as the stomach, but much lighter.

The vermicular motion continued for ten or fifteen minutes in the intestines, after the abdomen was opened. I observed that the same occurred in the horns and body of the uterus, quite as clearly as in the intestines, and that it could be produced at pleasure by puncture, by clipping, and by stirring. On the uterus being slit open from one end to the other, it flattened itself out, and the internal surface corrugated precisely as in the small intestine. The capillary system of the liver bled freely half an hour after death, upon being punctured with the scissors.

Experiment 4th.—A full grown female rabbit—Opened the abdomen, by a cut from sternum to pubes—intestines became very highly injected with blood, in a few minutes after being exposed.—Laid open the colon and irritated the internal coat by rubbing—it took on a bright scarlet lake colour, approaching to vermilion;—on the external face of the same intestine, an anastomosis was manifested resembling a very fine honey-comb. The stomach was laid open by a section along its greater curvature and the bouillie like contents consisting of green vegetable matter turned out. The internal coat of the stomach highly suffused with blood, and of a deep crimson lake colour. The stomach bled very profusely from the cut surface, in consequence of which, it began to clear up, by its colour becoming less intense. Applied some alcoholic solution of corrosive sublimate upon one spot of the internal coat of the stomach, about ten minutes after the commencement of the experiment—it did not seem to produce any impression, perhaps owing to the hæmorrhage. Killed the animal in twenty-five minutes after commencement, by pithing it behind occiput; then cut out the stomach. The cardiac half was of a light tint of lake colour; the pyloric half was of a yellow pearl colour. The stomach after death, in this experiment, corresponded with experiment No. 3, in the colour being uniform, not mottled. The peristaltic movements were observed in the uterus and its cornua. After pithing, gasping occurred, with the usual cessation of respiration.

Experiment 5th.—A full grown rabbit. Punctured medulla spinalis, at commencement, respiration stopped immediately. In five minutes opened abdomen, capillary circulation as well as that in the larger vessels, brisk. In twenty minutes capillaries of liver, spleen, and kidneys bled on being punctured with a saddler's awl—stomach and bowels did not. Cut the stomach open along its greater curvature and turned out its contents, then removed and washed it well immediately. The left half of a lake, approaching vermilion, uniformly diffused as in experiments 3d and 4th, (see Pl. I. fig. 1,) the right half of a dull pearl, as in the same experiments. See fig. 2.

From the great number of blood-vessels distributed through mucous membranes, they are, during life, of a very bright red colour, on many of the viscera, as the stomach, the small intestines, the lower end of the large, on the vagina and nose; in many other parts they are much less vascular, as in the lining membrane of the sinuses of the nose; in the bladder, and in the excretory ducts generally. The nostril and the vagina, in a robust, healthy person, will probably be found to represent correctly the shade of colour which, in life, belongs naturally to the gastro-intestinal mucous coat.

Observation 1st. Living colour of healthy Mucous Coat of Colon.—There is now a female in the Surgical Ward of the Philadelphia Alms-House, who suffered some time ago from prolapsus ani, which is said to have protruded about six inches: the protruded intestine sloughed off, as well as the sphincter ani and the adjoining integuments. This new state of the parts affords a distinct view of the internal coat of the colon, near the sigmoid flexure. The perineum has cicatrized and united to the end of the colon, but the surface is kept excoriated, by the continued excrementitious discharges; from the want of a sphincter. In this patient, the mucous coat is of the colour of the vagina, or of a recently blistered surface of the true skin.

Observation 2d. Sudden death from ossification of coronary arteries, exhibiting natural colour of Gastro-intestinal Mucous Membrane. —*July* 17, 1827. Mr. W. J. aged fifty-five, of remarkably temperate, regular habits; for some years previous to his death, was troubled with a shortness of breathing, upon ascending a flight of stairs. His principal treatment was regularity and abstemiousness. Last night about 10 o'clock, just before he went to bed, he took, as was not unusual, a glass of cream, which he always considered to agree remarkably well with him. About 4 o'clock A. M. he was seized with extreme difficulty of breathing, complained of most violent pain in his loins, said that he was dying, and in a short time expired. From the commencement to its termination, this attack occupied twenty minutes, during which his senses remained unimpaired. Dr. EDWARD JENNER COXE was present, he found his pulse regular but small.

At 4 o'clock this afternoon I examined him, assisted by Drs. DEWEES and COXE.

Exterior appearance.—Stature five feet seven inches, square, robust and well set, middle corpulence inclining to obesity. Skin clear and fresh; features placid; some blueness about the neck from settling of blood, lips pale; pupils middling size; no putrefaction; subcutaneous veins bled on being cut.

Thorax.—Lungs perfectly healthy in their parenchyma; soft, elastic; on being cut into discharged a great deal of frothy mucus and serum. Right lung adhering in its whole periphery by old adhesions of coagulable lymph. The left pleura contained five ounces of straw coloured serum, no remains of coagulable lymph to be seen about it; perhaps there might have been more serum which was removed by absorption after death, an idea advanced by MASCAGNI; injection of pleura not considerable, but I could not judge very satisfactorily on this point, from the difficulty of throwing the light in a proper manner upon it.

Heart larger than usual by one-third, covered with fat; only a few drops of synovia in pericardium. Right side healthy and filled with fluid blood, having no coagula in it; left side contained only a small quantity of fluid blood; left auricle healthy; moderate hypertrophy of the left ventricle. Semilunar valves undergoing the earthy degeneration so common in advanced life, with very small ossified points here and there; aorta had also undergone as far as the arteria innominata the degeneration preceding ossification. Sinuses of Valsalva twice or thrice as large as natural. Mitral valves somewhat degenerated also.

Coronary arteries of the heart for two inches after their origin, and also the branches leading from them, ossified into rigid inelastic tubes, like the arteries of the extremities in certain cases.

Cartilages of ribs perfectly ossified.

Abdomen.—Liver healthy. Spleen, coats of, interspersed with white patches giving it a parti-coloured look; healthy in other respects.

Stomach middle sized; contained two ounces of mucus, some of which was loose, while the other formed a white transparent coat adhering to the sides, but which could be scraped off easily. Rugæ of mucous coat elevated, but not unusually so; whole internal surface of mucous coat on the summits and sides of rugæ of a very light, warm sienna or bright brown colour, which was produced by innumerable microscopical points of red blood remaining in the capillaries. In the depressions between the rugæ, the stomach of a dull pearl colour.

The jejunum was of a deeper sienna, and of a more uniform tinge than the stomach; contained feculent matter consisting of mucus, yellow bile, and cream, all reduced to a homogeneous and digested mass. Its lacteals were distended with chyle, and were seen converging in their ramifications to the mesenteric trunks which were also filled. The lacteals were not perceptible in the ileum.

The colon presented its mucous coat of a dull pearl colour, and contained soft healthy fæces adhering to its sides.

Peritoneum entirely and unexceptionably healthy. Brain not examined, as there had been no symptoms of apoplexy or cerebral disease.

I never on any occasion of my life found the abdominal viscera in a state which seemed indicative of more perfect health, or more suitable as a standard of observation; the case I consider in this respect as invaluable. See Pl. I. fig. 3 and 4.

We have now ascertained the colour of a healthy gastro-intestinal mucous coat, in death from hæmorrhage after fasting; in death from puncture of medulla spinalis with a full stomach; in sudden death without the least probability of a diseased digestive apparatus, the stomach being empty; and finally in the living state. We shall next endeavour to ascertain the colour in Congestion.

II. *Colour of Mucous Membranes from Congestion.*

Our materials for elucidating the laws and phenomena of passive congestion, are exceedingly imperfect and scanty. According to one writer,* congestion is the effect of torpor of habit, connected with an abstraction of stimulus, and is for the most part local. It is seldom accompanied with febrile irritation till it acts as an extraneous stimulus. Febrile motions may sometimes be the product of congestions; congestions, depositions, or evacuations are uniformly the product of febrile motions, that is, of irregular action. Dr. ARMSTRONG has also written, indeed diffusely, on what he calls the congestive typhus fever, (p. 68—97;) but the cases which he has given in illustration of his views, would seem rather to belong to diseases of irritation, than to passive congestion of the organs affected. He has also made some capital omissions in not giving us the laws of congestion; in not saying a word about the state of the mucous coat of the stomach and bowels; and in confining his attention almost exclusively to the liver, spleen and brain.

The congestion of red blood in any part of the body, is commonly produced by an obstruction of one or more of the large venous trunks which return the blood to the heart. A ligature on the arm for the purpose of bleeding has this effect; garters worn too tightly, or indeed any other articles of dress which interfere with the return of blood produce the same; lymphatic or aneurismal tumours situated near the junction of the extremities with the trunk of the body, also produce a congestion of blood in the parts beyond them, by pressing on the adjoining veins. Position will do the same, as throwing the head downwards and forwards in certain individuals who are corpulent and have short necks. Permitting a column of blood to remain too long on a part, sometimes has this effect, as in standing or walking, which in certain persons is followed by a great accumulation of blood in the legs and feet. The general character, however, of all these cases of congestion is, that the congestion disappears the moment that the cause that produced it, is removed. It very rarely happens that the capillaries and the larger veins are more than simply distended under such circumstances, and they quickly contract to their healthy diameters. It however occurs occasionally in pregnant women, near the term, to have some of the fine blood-vessels of the legs ruptured, in which case there follows an extravasation of blood in small bluish spots about half an inch in diameter, and which being a true ecchy-

---

* Jackson on Fever, 1803, p. 197.

Uttarpara Jaikrishna Public Library
Acc. No. 50292 .... Date 2/2/99

mosis, presents the same variations of colour, and is removed by the same process as the latter when caused by bleeding.

It is practicable to produce a congestion of the whole venous system, by obstructing the general circulation. If such obstruction be continued till the death of the individual, the phenomena of congestion are exhibited in swollen face, bulging eyes, blue lips, tumefied and red tongue, with purplish or red blotches on various parts of the surface of the body, but especially about the head, neck, and trunk. The most usual causes of such obstructions to the general circulation, are asphyxia, from hanging, drowning, or irrespirable gases. The mucous membrane of the lungs wanting in this case the usual stimulus of atmospheric air, refuses passage to the blood from the ramifications of the pulmonary artery into those of the veins, and a complete arrest is thus put upon the general circulation. The lung becomes the seat of a congestion or engorgement in its capillary system, and all the mucous membranes of the body suffer in the same way.

Bichat's experiments,* are quite conclusive on this point. He says, that in an animal in whose trachea a stop-cock has been fixed, if you draw out a portion of intestine and split it open, then close the stop-cock; in four or five minutes afterwards, a dark brown colour will succeed to the red, which previously characterised the mucous surface of the gut; and the same change of colour will occur in a granulating surface under similar circumstances.

The lividity of the surface of the body, and of its mucous membranes, may be made to come and go at pleasure, by interrupting or restoring the freedom of respiration. The arrest of the capillary circulation is, however, not to be considered as a mechanical phenomenon, but a physiological one; for the animalization of the blood being somewhat affected or altered from the want of respiration, the sensibility of the capillary system is not properly excited by it, and therefore this system refuses to propel the blood. The blood in this respect may be compared to extraneous fluids, which, if they be injected into living blood-vessels are found not to run so minutely as they do some time after death, when the vessels get into a passive state.† Parallel phenomena are common, and are well exhibited in the actions and sensibilities of many parts of the body. For example, the trachea, which is so large, yet closes immediately against the introduction of fluids which are unfit for respiration, as proved by Goodwin's experiments. The urethra in a state of sexual excitement will transmit the semen, but not the urine; the lacteals readily absorb the nutritious part of the chyle, but refuse the remainder, notwithstanding the equal fluidity of both. A moment's reflection will satisfy us that such powers of discrimination are indispensable to the operations of the system, for without them, the several fine tubes of the human body, vascular, absorbent, and secretory, would be continually mixing their fluids in a manner inconsistent with life and its objects.

---

* Anat. Gen. Vol. I. p. 188.

† Bichat, Anat. Gen. Vol. II. p. 25.

It is not improbable that several species of purpura, as the urticans, the senilis, and the hæmorrhagica, all of which seem to be an arrest of the red blood in patches in the true skin, or rete mucosum, have in their pathology a close connexion with the purple spots from asphyxia—that is to say, that there is a want of reciprocal sympathy between the red blood, and the capillaries of the part, and therefore it is arrested in its passage through the latter. These spots may be distinguished from a common ecchymosis, by their boundaries being well defined, and also by their deep, varying colour, which being sometimes lighter, and sometimes darker alternately, show that the blood forming them, though arrested, is yet under the influence of animalization. The colour alternating is, however, not an invariable feature of this disease. I have lately met with a case of purpura hæmorrhagica at the Alms-House following an inflammation in the cellular substance on the front of the knee, and extending over the anterior semi-diameter of the leg from the knee to the foot, where there were no alternations of colour, and the disease disappeared like a common ecchymosis. I have subsequently seen it a prelude to mortification in the leg of a patient, Anthony Hartman, aged 25, in the same institution. The patch which it formed, surrounded almost the whole leg about its middle, in a band of five or six inches.

In the more common cases of congestion, as the accumulation of blood is removed immediately upon the cause being withdrawn; so the organ of the body, which has been the seat of it, is quickly restored to its usual functions, and the disturbance which they have experienced, readily disappears. If, however, the congestion be permitted to remain an undue length of time, the preponderance of the fluids will cause the congested part to inflame and even to mortify, as in strangulated hernia.

The following dissection of a patient, who died in the Alms-House, will serve to illustrate the state of the stomach and bowels in congestion from a slow process of asphyxia, and to fill up partially the very wide gap in this part of physiology and pathology.

Observation 3d. Congestion of Gastro-intestinal Mucous Coat. —Wm. Thomson, æt. 37, admitted June 8th. 1827. with abscess around cricoid cartilage, died June 10th.

Previous History.—While in France, some years since, had secondary syphilis and other constitutional affections,—was salivated for a length of time—recovered—came to this country; where he has continued since in the capacity of coachman. Has drank freely for some time past. About four months since, had common catarrh, the result of which was some difficulty in deglutition and respiration, and tremor in the throat.

Symptoms.—When admitted, there was a flattened, immoveable tumour in front of the thyroid cartilage, about two inches in diameter, half an inch thick—inspiration difficult in the extreme, amounting almost to suffocation—expectoration purulent—deglutition exceedingly painful—countenance anxious and distorted.

The tumour was removed by the knife on the day of admission, at four o'clock, P. M. I found it lying on the whole front part of the thyroid cartilage, between it and the sterno-hyoid muscles. The wound was filled with lint, and then covered with a compress of the same, maintained by a roller: in ten or fifteen minutes afterwards, it began to bleed rather freely. I then removed the dressings, turned the clot of blood out of it, sponged, and not finding any bleeding vessel, I directed it to be left undressed, with a light cloth thrown over it. This answered to arrest the bleeding until midnight, when it again bled half a pint and then stopped. The tumour was of the hard encephaloid kind, having, however, a small purulent softening in front; it seemed as if it might have come from a lymphatic gland; but its flattened shape was adverse to this idea: neither had it a distinct capsule.

He spent the night but slightly relieved by the operation, pulse rather full, and tense—expectoration and deglutition less painful and difficult—the former thick, white, purulent and consistent—Ordered venesection ℥viij. ℞. Tart. Ant. gr. ii—Aq. pura, ℥viij. M. A table-spoonful every hour—took six doses, then stopped on account of nausea.

June 9th.—Respiration very laborious—expectoration as yesterday—will not consent to tracheotomy, which I now proposed to him. On the next day, died at ten o'clock, A. M.

Autopsy, six hours after death. An entire removal of the tumour over the thyroid cartilage—its bed thickly covered with coagulating lymph—thyroid gland healthy—superior laryngeal nerves not affected—No marks of capillary congestion, on the surface of the body—Lungs healthy in structure, some old pleuritic adhesions on left side—no particular congestion, save at their posterior part, perhaps less blood than natural found on cutting into them—miliary deposites of coagulating lymph on the surface of both lungs.

In pericardium about ℥iij. of straw coloured fluid.

Abdomen.—System of vena portarum, filled with blood; even in the fine intestinal branches, which were very conspicuous under peritoneum, so as to give a light purple colour to the whole of the small intestinal canal: in places it was interspersed with mahogany coloured patches of two inches diameter. Colon externally was of a white pearl colour, contracted to three-eighths of an inch in diameter, and contained natural hard fæces. There were no fæces in small intestines, only flatus.

Along the whole anterior margin of the liver, a little above its edge, there was a white, hard cicatrix of old, condensed coagulating lymph; mixed at intervals with hepatic structure, by penetrating at various places from three to six lines into it. This terminated near the right end of the great lobe, by a depression, as if an abscess had once existed there. On cutting into the liver, near the cicatrix, many small miliary tubercles were found there, but they were not observed at more remote places.

Gall-bladder filled with healthy bile.

Spleen healthy, but completely surrounded by old adhesions.

Stomach, common size; of a pearl colour on peritoneal surface. Internal or mucous coat, covered with mucus tinged with bile—corrugated—light pink colour, generally—summit of rugæ, from accumulation in capillaries, appeared like red streaks, at the distance of six feet, from being covered with minute dots of red of the size of a needle point. No large patches of ecchymosis or red blotches, so conspicuous in inflammation.

Intestines. Mucous coat covered with similar small dots or points of red. Internal membrane of colon, slightly tinged with red dots. Besides the hardened fæces in the commencement of this viscus, there were some small pieces of it along its course.

Œsophagus natural; internal coat white pearl colour, and the venous ramuscules filled with blood, but the dots not conspicuous.

Throat. Along the upper margin of the glottis, as formed by the doubling of the membrane from the tip of the arytenoid to the side of epiglottis cartilage a tumour existed on each side, formed of serum and coagulable lymph, about the size of a small nutmeg, so loose as to hang over the glottis, and to be drawn over the rima glottidis in every act of inspiration.

Cricoid cartilage, at posterior part both externally and internally, separated from its perichondrium; whose surface was in the condition of a fistulous sore.

Aryteno-cricoid articulation, detached by the extension of the latter disease. A sinus formed communicating between the fistula and the right ventricle of the larynx. Posterior part of cricoid cartilage reduced to a thin edge above—its diseased surface, rough and resembling a carious bone—lining membrane of trachea and bronchia, natural.

Head.—Scull-cap bled freely when torn up. Veins of dura mater and pia mater much congested. Tunica arachnoidea, raised up from pia mater, by serous effusions in the interstices between convolutions.

Mass of cerebrum, congested with blood.

Ventricles contain ℥ss. serum. Serum on basis of *brain*, under tunica arachnoidea: arteries of base, filled with blood. *Pons varolii*, congested. Fourth ventricle contained serous effusion. Texture of the cerebrum and cerebellum, natural.

To sum up what has been said, it appears then—

1st. That congestion is not an active condition of the part affected. When active it constitutes inflammation.

2d. That congestion most frequently is the result of mechanical impediments to the venous circulation.

3d. That the other cases in which it occurs, are where there is a want of reciprocal sympathy between the blood and the blood-vessels in the capillary system, in consequence of which, the latter refuses passage to the red blood.

III. *Of the Red Inflammation of Mucous Membranes.*

Red inflammation has for its symptoms, heat, pain, redness, and swelling, all of which are very obvious when it attacks a portion of the external surface of the body. It differs from congestion, in the latter causing an accumulation of blood in all the capillaries of an organ in which the blood is arrested, while inflammation is most frequently limited to a single tissue, and exhibits redness in it alone, or at least, principally; as for example, in mucous coats during their inflammation, in muscular during theirs, in peritoneal during theirs, &c. This however must depend upon the intensity of the inflammation, for where it is very considerable, adjacent coats will also be affected.

Congestion is regular in its progress, and begins without constitutional symptoms; whereas, inflammation begins with a chill, has exacerbations and remissions, and a course of augmentation, of stasis and of decline. They both may terminate by delitescence or a disappearance of the accumulated blood, or by resolution when particles of red blood are infiltrated, but inflammation also terminates in suppuration, in scirrhus, in hepatization, and softening of a part.

The traces of acute inflammation are in many cases very fugitive, and entirely disappear upon death, because the local irritation which attracted the blood and accumulated it, having ceased, the blood abandons that part and retires towards the centre of the circulation. We can seldom tell by the appearances twenty-four hours after death, the quantity of blood which has penetrated an inflamed membrane, as the peritoneum, the pleura, the cellular and mucous membranes, the skin, &c. The eruption of measles, and the redness of sore throat disappear on the death of the patient. We are not, however, to infer from these circumstances, that the mere afflux of blood to a part constitutes inflammation, on the contrary it is attended with a dilated condition of the vessels independent of this afflux, for if death occur during the height of measles, the eruptions may be made to reappear by injecting the vessels.

Bichat* has very properly observed, that in inflammation we should distinguish between acute and chronic affections, because, though the blood readily vanishes from the former, yet it will remain in the latter, because it has combined with the diseased organ. Hence, induration, suppuration, and vitiated secretions are satisfactory signs of inflammation of a part.

The increased irritability of a part is the cause of its inflammation, and of the afflux of fluids to it. Frequently this increased irritability depends upon the sudden diminution of irritability in other parts of the body, by depressing applications. Thus, cold suddenly applied to the surface by depressing the irritability there, causes an accumulation of it with inflammation of some one of the internal organs, as the lungs or bowels. Direct undue stimulation of an organ or part, will produce an augmentation of it irritability amounting to inflammation. The natural increase of irritability of organs at particular periods of life, sometimes amounts to inflammation, as that of the uterus at puberty, manifested by menorrhagia, amenorrhœa, &c. the extreme tenderness of the breast at the beginning of lactation—the tenderness of the testicles during a state of sexual excitement, &c.

It is principally in the capillary system,† that the phenomena of inflammation occur, and that the varying degrees of organic sensibility determine corresponding movements in the circulating fluids, accumulating them at one spot, and expelling them from another. Inflammation is therefore exactly the inverse of what BOERHAAVE believed, for, according to him, the blood pushed from behind by the heart into an organ caused its irritation or inflammation; whereas it is the irritation which attracts the blood.

Irritation has all the gradations from the light, alternating and varying blush of virgin diffidence to that rapid and tumultuous afflux of fluids to an organ which in a few hours produces its dissolution. In slight irritations there is no fever, but when they are more intense there is an increased heat of the body, and an accelerated circulation throughout it. Fever in such cases, is merely a general symptomatic affection, arising from the sympathy which connects the heart to all other parts, and has nothing of the specific affection in it, but merely manifests the grade of the irritation. Thus, a fever from a syphilitic bubo is the same as a fever from measles, from small-pox, or even from a mechanical injury.*

---

* Anat. Gen. vol. 2. p. 22 † Idem, p. 25.

When the irritation of a part goes beyond certain bounds, the sensibility is exhausted, and death ensues.† The vital condition having abandoned the solids, the fluids get quickly into a state of putrefaction, this state is the gangrene of writers, and is well depicted in strangulation of an intestine, or in mortifications which frequently occur in the legs of drunkards. Bichat‡ goes so far as to say, that when the organic sensibility of the part begins to diminish, the blood which has been attracted by the inflammation may even then tend to putrefaction, but always the want of tone in the solid precedes it.

There are many proofs of inflammation being seated in the capillary system, and of the circulation of the latter being in some measure independent of the general circulation. 1. The partial erythemas of the skin. 2. In slight incisions or scratches the skin will bleed very little at first, but so soon as the irritation has determined a flow of blood to the part, the hæmorrhage is sometimes troublesome, as in shaving. 3. The secondary bleeding from operations is sometimes very profuse from this cause. 4. Another, and a very strong proof of the power of the capillary circulation to go on without the impulsion from the heart, is that if a limb be made turgid with blood by the application of a tourniquet as in common amputation; when it is cut off, though it be completely withdrawn from the influence of the heart, yet the capillaries empty themselves, and the limb becomes as pallid as under any other circumstances of death. Though I feel satisfied of the capillary circulation being different from the circulation in larger vessels in not depending wholly on the heart, yet it is to be understood that I do not withdraw it entirely from this agency, for there are many strong proofs of its subordinancy. In the inflammation of transparent parts, for example, of the skin under the finger nail, where vascularity is very perceptible, every pulsation of the arteries of the upper extremity is attended for the moment by an increase in the vascularity of the part inflamed, and a deeper suffusion of it.

---

* Bichat says, (An. Gen. v. 2. p. 30,) he believes that if one examined attentively local affections and general fevers, he would find invariably the species of fever to correspond with the species of local affection in its nature. I do not coincide in this sentiment.

† An. Gen. v. 2. p. 29.

‡ Ibid.

From the several observations now made, it is clear that the blood upon reaching the capillaries moves through them by their peculiar tone, and not exclusively by the action of the heart. But as many causes alter this tone or sensibility, causing it to increase or diminish, the motions of the blood in the capillaries will undergo corresponding varieties, and frequently become irregular. A slight irritation will cause it to advance, to recede, to turn to the right or to the left. By the experiments of HALLER, SPALLANZANI, and of others, often repeated and entirely well attested, it appears that the blood under ordinary circumstances moves straight forward from the arteries into the veins; but upon the application of an irritant, its movement becomes irregular, and inclines in every variety of direction, backwards as well as forwards. These movements of the globules of blood are very distinct in the transparent parts of animals having cold but red blood; they are seen with more difficulty in the warm-blooded, even in parts of the same transparency.* As Bichat remarks, it is hence easy to see that all the phenomena of inflammations, of eruptions, of tumours, &c. are founded especially upon this susceptibility of the blood in the capillary system, to be borne into an infinity of different directions, according to the places where it is called by the irritation.†

Fevers can only exist in animals who have a regular round of circulation, whose fluids move in mass. In zoophytes and animals whose circulation is entirely capillary, we only see such phenomena as belong to the capillary system, as tumours, adhesions, &c. Vegetables, for the same reason, have only the diseases of the capillary system.‡

The irregularities in the capillary circulation are always partial, for if the blood move more slowly or go backwards in one place, it will proceed more speedily in another, so as to maintain the general circulation; if it were otherwise, life must cease, for it would be incompatible with it for all the capillary circulation to be arrested, or to go backwards at once. Hence arises a law of organism always strongly exemplified in disease, that if the vital forces augment their energy at once place, they diminish it in another. There appears indeed to be only a certain quantity allotted to each individual, and though it may be accumulated at certain points so as to present a disproportionate sum in different parts of the body, yet it never can be augmented or diminished in mass by disease. This principle is the foundation of all correct physiology and pathology, and is in fact, a matter of daily observation We learn from this why it is that general bleeding is frequently inefficient in local inflammation, for so long as local irritation continues, whereby blood is attracted, (not driven,) to a part, the mass of blood may be diminished one quarter, and yet the inflammation will continue; whereas, in an animal having no irritated point in his system, you may double the quantity of blood by transfusion, and yet not produce local inflammation.[*]

---

* Anat. Gen. v. 2. p. 39. † Ibid. ‡ Idem, 38.

Every operation of nature manifests an economical or exact application of means, to effect an object; there is nothing superfluous. We therefore see that during the waking state, the vital energies and the currents of blood, are principally directed towards the senses and organs of animal life, or those of relation, as the muscles, &c. and that during sleep, the vital energies are applied to molecular nutrition, and the repairs and general restoration of equilibrium in the system. Infants sleep more than adults for the reason that their molecular nutrition or growth is more imperiously required. Deprive any one of sleep, and he soon becomes haggard and emaciated. There is a continued alternation in each individual, in the actions of the system, and in the currents of blood, depending upon the waking, and upon the sleeping states, one set of organs requiring the blood more at one time, and another set at another. It is impossible for an undue excitation, and an undue rush of blood to occur upon all points of the body at one and the same time, or in other words, for there to be a general disease. A general disease or inflammation would be as little consistent with nature, as a general rise in the waters of the ocean, which we know to be always lowered at one place when they are raised by the wind or other causes in another. Such an inference would be a solecism in pathology for the reason that disease implies a loss of equilibrium in the actions of the body, by one or more parts having an unnatural preponderance. The general actions of life may all be increased at the same time, as one increases the weights upon each end of a pair of scales, and yet preserves an equilibrium, but so soon as we take from one or add to the other, the equality is destroyed.

It is perhaps owing to molecular nutrition being stronger at night, that the symptoms of inflammation, (which latter at least in its milder forms bears some analogy to the former,) are increased at this time.

The general augmentation or acceleration of the actions of the body in exercise, as running, jumping, and so on, differs from dis-case in this respect, that there is no concentration of irritability in any one organ, and a consequent afflux of blood; but on the contrary, the equilibrium of the system is maintained, notwithstanding the apparent haste and momentum of its actions.

---

[*] Anat. Gen. v. 2. p. 41.

The causes which produce inflammation of the mucous coat of the stomach and bowels are numerous, and in many individuals there is an idiosyncracy which inclines them to it, from very slight causes. Persons who are exposed to the changes of the atmosphere by sleeping out of doors, as in military life, present frequent examples of it; bad aliment, or an excessive indulgence in what is good, also disposes to it. Poisons of all kinds may produce it, also moral affections, as melancholy, rage, &c. As my principal object, however, is to point out the anatomical characters which are left after death by gastro-enteritis, I must confine myself to such remarks as are pertinent to them.

In acute inflammation of the mucous membrane of the stomach, when the patient dies in the early stage of the disease, the blood-vessels which ramify through the stomach, are enlarged and distended with blood. The membrane itself is covered by a coat of mucus, which is sometimes limpid like the white of an egg, but on other occasions, thick and purulent like that from the nose. The mucus adheres frequently very strongly to the stomach, and is now and then so tenacious and consistent from the admixture of coagulating lymph with it, as to resemble a false membrane. When the coat of mucus is scraped and washed away, the mucous membrane itself is brought into view, being most frequently in the greater part of its extent of a deep red, approaching on some occasions, a crimson red, on others, a purple or black. These colours are owing to the injection of a prodigious number of capillary vessels in the mucous coat; and in addition to them we find the inflamed part of the stomach interspersed with bands and patches of red, of the colour of coagulated blood, being a species of ecchymosis, in which the blood has escaped beneath, and in the substance of the mucous membrane. The mucous membrane at these places is somewhat softer than natural, and sometimes appears swollen, may be readily detached from the cellular coat with the end of a scalpel, and is in the condition of a bouillie. In cutting through all the coats of the stomach, and looking at the incised edge, it will be seen that where the general and diffused redness exists, the colour is only superficial; but at the ecchymosed spots, not only the whole thickness of the mucous coat is concerned, but even the corresponding part of the muscular, is more highly coloured than in common. In some cases where the gastritis has been occasioned by caustics, there are eschars of the mucous membrane, some of which are detached and leave the muscular, or even the peritoneal coat bare from the depth of the impression made. It is said that such eschars became more distinct some hours after the stomach has been exposed to the air.*

In some cases of acute inflammation where the symptoms have been those of army dysentery, or of typhus fever, the stomach and bo[illegible]re occasionally found a little thicker than usual, and of a ye[illegible] brown or red colour on their peritoneal surface, and in their thi[illegible] the fœtor from them on opening the abdomen, is much greater than usual, and the peculiar smell of the halitus from the peritoneum is overcome by it.

Some circumstances have been alluded to by Drs. PHYSICK and CATHRALL†, which, if properly appreciated, would contribute much to settle the opinions of medical men in relation to gastric inflammation; for they go to show that the appearance of the inflammation of yellow fever varies according to the date of the disease. "In two persons who died of this disease on the fifth day, the villous membrane of the stomach, especially about its smaller end, was found highly inflamed, and this inflammation extended through the pylorus into the duodenum some way." The inflammation was exactly similar to that produced by arsenic.

"In another person who died on the eighth day of the disease, several spots of extravasation were discovered between the membranes, particularly about the smaller end of the stomach, the inflammation o[illegible] had considerably abated. Pus was seen in the beginning of the duodenum, and the villous membrane at this part was thickened."

"In two other persons who died at a more advanced period of the disease, the stomach appeared spotted in many places with extravasations, and the inflammation disappeared." It and the intestines contained a black liquor so acrid as to produce inflammation and swelling on the operator's hands, which continued for some days.

"The stomach of those who died early in this disease was always contracted, but in those who died at a more advanced period, where extravasations appeared, it was distended with air." The external surface of the stomach was healthy, but from its veins being distended with blood they had a dark appearance.

In the dissections performed by Dr. Physick in the years 1798–99,‡ the inside of the stomach in some cases resembled the black vomit precisely in colour. In most of these cases no black matter was found in the cavity of the stomach, but the blackness depended upon this fluid being retained in the vessels of the inflamed mucous membrane. The doctor remarks that he never observed any putridity attending it, and that the colour was very distinguishable from the dark purple of gangrene. In some stomachs the blackness was universal; in others, in spots only; there being some spots in a state of high inflammation and giving the inside of the stomach a chequered appearance. These spots, in one instance, resembled one another precisely in shape, and in all other respects, excepting [illegible], in which they differed, one being black and the other red.

---

* Dict. des Sc. Med. T. 17.

† Rush's Inquiries, Vol. 3, p. 172. Philadelphia, 1809.

‡ Medical Repository, New York, Vol. 5, p. 129.

Dr. Physick's opinion on these subjects was, that this black matter, commonly called the black vomit from its being ejected by vomiting, was a secretion from the inflamed vessels of the stomach, and one of the most common modes by which violent inflammation of the stomach has a disposition to terminate. "For in some cases where the vomiting of black matter had been considerable in quantity, or continued for several days the inflammation was found very faint indeed; and in some the inside of the stomach appeared as if covered over with a vast number of small glands, like mucous follicles crowded together."*

When chronic inflammation has assailed the mucous coat of the stomach, this membrane is commonly found thrown into numerous folds. Sometimes it is thickened, of a denser texture than natural, and reddish, with irregular white patches. On other occasions, the whole of it is red with purple spots, as in acute gastritis; sometimes the whole of it is of a purple, approaching to claret colour. When the disease has been produced by poisons of a force insufficient to cause immediate death, small ulcers are found near the pylorus, and along the greater curvature of the stomach.†

In some observations that I have made on the stomachs of intemperate persons at the Alms-house, I have found the mucous coat thickened and dense, without any remarkable contraction of the stomach, yet thrown into numerous, thick, elevated rugæ, and the summits of those rugæ, so reddened by numerous capillary vessels injected with blood, that at the distance of a few feet, they appeared, when the distinction of the individual capillaries was lost in the distance, like red streaks. This, which is probably one of the pathognomonic signs of a recent debauch in an old drunkard, is frequently mistaken in the post mortem examinations at the Alms-house, for congestion, from an arrest of blood in the agonies of dissolution.

---

* Medical Repository, New York, Vol. 5, p. 129.

† Dict. des Sc. Med. T. 17, page 679.

The red blotches which form the leading anatomical character of acute mucous inflammation in malignant fevers may be readily produced by chemical irritants.

Experiment 6*th.*—A full grown white rabbit fed three hours before on cabbage leaf, was fixed in a frame and the abdomen opened by a cut from the sternum to the pubes. The stomach was drawn out, it was filled with the food, (which exhibited the appearance of having been boiled,) and had an hour-glass contraction in its middle, separating it into two sacs with a small orifice between them. The stomach was opened all along its greater curvature, and the food turned out; the whole mucous coat was of a scarlet-lake colour. This colour became deep crimson-lake, and the stomach more suffused with blood on wiping or rubbing the mucous coat with the hand. To one part I applied the glass stopper of a bottle, wet with a saturated solution of corrosive sublimate in sp. vin. rect. which had the effect in three or four minutes of deepening the colour of that part still more.

The colon was in greater part filled with soft fæces. The small intestines on being cut into, exhibited the mucous coat of a light-lake, approaching vermilion, which colour remained after death.

In this experiment an ounce and a half of blood was lost from the cut vessels. I had proceeded to open the trachea, and had fixed a pipe into it for the purpose of trying the effect upon the blood, of shutting off the air from the lungs, when the animal died after a faint struggle.

In five minutes after, the stomach was cut out and put under a stream of water to wash it well. The lake colour still remained in the whole mucous coat from the residence of red blood in the capillary system. At the place where the corrosive sublimate was applied, *there were irregular, oblong, red blotches of two or three lines broad.* The mucous coat had indeed this variety of hue in other places also, but not so deep. In one part, there was a line of petechial spots, half an inch or three quarters in length, from half a line to a line in diameter, each resembling in colour the red blotches.

Observation 4th.—Acute gastritis and peritonitis. Harriet Derrickson, an African, aged twenty-six years, was received near the term of pregnancy into the Alms-house, July 13th, 1827, after a recent confinement in prison. On the preceding day she had got wet.

which produced a pain in the right hypochondrium—she was relieved by immediate bleeding.

July 13th.—Her pulse was rapid and febrile, and skin rather above natural heat, but the symptoms were generally mild, and not alarming. She was ordered a dose of Epsom salts, and barley water for common drink.

July 14th.—Eye slightly sallow, tongue inclined to dryness, with dark fur at base, costiveness, skin of common temperature and moist, pulse rather tense and rapid. In the afternoon there was a violent pain over the whole head, which was rendered still more severe upon her stooping. Vertigo; thirst; loss of appetite; pains in the limbs. A dose of Seidlitz powders, and cold applications to her head were prescribed.

July 15th.—Tongue unchanged, thirsty still, skin hot, violent pain in the right side. eyes yellow, breathing hurried, pulse rapid, not strong. Treatment continued, with the addition of cups to the right hypochondrium.

July 16th.—She miscarried of a dead child to day at 6 A. M. with the loss of but very little blood, but her strength was almost exhausted. Her skin continued hot and dry, her tongue dry; stupidity. The symptoms continued to increase during the day; twenty leeches were applied to the temples, and forty to the epigastrium. At 4 P. M. a saline mixture which she had taken in the morning, brought away some natural evacuations, but the skin continued excessively hot, the pulse rapid, without tension, and compressible; the tongue still furred with red apex and edges, the sense of pain in the head had diminished much, but there was great tenderness of the epigastric and hypochondriac regions. A blister was applied to her side, sinapisms to her ankles, and fifteen drops of spirit of turpentine were directed every hour.

July 17th.—Almost entire insensibility, eyes of a golden colour, pulse very feeble, soreness of flesh, restlessness and moaning, spirit of turpentine increased in the afternoon to ʒij. every hour. She died at 6½ P. M.

This case was not treated by myself—the notes of it so far, were communicated by a most zealous and intelligent student of the house, Dr. Ashmead.

Autopsy, eighteen hours after death, by Drs. Hodge, Ashmead and myself. We found the internal face of the uterus lined with red blood, which had blended with its ragged surface; clots of blood were in the uterine orifices of the uterine veins, and could be readily picked out. There had been no undue hæmorrhage or lochial discharge.

The capillaries of the peritoneum, especially at the lower part of the abdomen, were distended with blood, and produced, here and there, rose-coloured patches. The peritoneal covering of the uterus seemed to have exceeded other parts in the intenseness of its disease, and had beneath it several patches of from six to twelve lines each of ecchymosed blood.

The stomach presented a degree of inflammation, over its whole mucous coat, not often surpassed even in yellow fever. Some inches square of its middle were almost in a state of sphacelation from the congestion and extravasation of red blood. Small clots of black blood were found among the contents of the stomach, but there was no black vomit. (See Pl. I. fig. 5.)

The following case, with the appropriate drawing, will serve to illustrate the appearance of the mucous membrane of the stomach, after an inflammation of two or three weeks.

Observation 5th.—Chronic Gastritis.—Women's Surgical Ward, Alms-house.—Mary M'Graw, aged 28, moderately corpulent, common stature, lymphatic temperament, habits of intemperance, was admitted May 10th, 1827, for a fracture of the neck of the acromion scapulæ, destruction of the acromio-clavicular articulation, and an extensive laceration and injury to the shoulder joint, manifested by the extreme facility with which it could be thrown out of place and restored again. The account she gave was, that two years ago she fell into a ditch, upon which occasion she produced the injury mentioned, and also broke the os humeri about the lower end of the bicipital groove. The os humeri was cured of its fracture, by the attention of a surgeon, but the shoulder remained in the state described. She afterwards continued to do her ordinary work, till last January, when she began to suffer violent pain in the affected shoulder, and subsequently lost the use of her arm.

Without very sanguine hopes of the success of the treatment, I yet determined, as there was not much probability of the individual being made more helpless by the operation, to try the effects of a seton in producing a reunion of the broken acromion and of the acromio-clavicular articulation. The patient agreed to the proposal, and May 29th was fixed for its execution, but owing to her being feverish and unwell on that day, it was postponed to the next prescribing day.

June 1st.—The patient seeming sufficiently well, I passed a seton through the acromio-clavicular articulation, and another through the fractured neck of the acromion. The patient being exposed in returning through the yard to her ward, was seized directly afterwards with a chill, which lasted half an hour and was succeeded by fever.

The same night, or the succeeding, was attended with a storm of wind and rain. An unruly patient, in the same ward, threw up the window at the head of M'Graw's bed, while she was asleep, and left it open.

June 2d.—Chill at 10 A. M. followed by fever, head-ache, bad taste. Venesection ℥vii. ℞. Sulph. Magnes. ℥ss.—Carb. Magnes. ʒss. M. Ft. Haustus.

June 3d.—Renewal of symptoms of preceding day. Seidlitz powder, ℞. Sal. nit. ʒij., ant. tart. gr. i., aq. ℥viii. A table-spoonful every hour during fever. This mixture was discontinued after a few doses, from its producing too much nausea.

June 4th.—Pain in the epigastrium. Skin cool, pulse natural, tongue slightly furred, bad taste, restlessness. Shoulder manifests inflammation, and discharges pus from the setons. Desault's bandage applied. The symptoms continued with but little variety till the 10th. A mild febrifuge treatment was followed.

June 10th.—Pulse full, head-ache, face flushed, bilious vomiting, great tenderness in epigastrium—forty leeches to epigastrium—sodaic powder.

June 12th.—Tenderness of epigastrium diminished much, but vomiting continues at intervals. Skin cold and clammy, countenance distressed, bowels too loose. No sleep last night. Large discharge from shoulder. Lime water and milk. Cretaceous mixture.

June 14th.—Skin hot and dry. Tongue dry and furred. Stomach still out of order. Some tenderness in epigastrium. Blister to epigastrium. Ptisane of sal. nitri.

June 15th.—Stomach still irritable, tongue brown, alvine evacuations green. Tenderness in epigastrium. Fifteen leeches to epigastric region. Calomel half a grain every two hours.

June 16th.—Symptoms the same. Discontinue calomel. Saline mixture.

June 18th.—Severe chill, which lasted several hours, skin cold and clammy, frothing at mouth, extremities cold, countenance cadaverous. Hot bricks to feet and trunk. Hot lemonade.

June 19th.—Sinking still. Skin polished, pulse small and feeble, tongue dry and brown, extremities cold, especially the arms. Extreme pain in epigastrium on pressure; alvine discharges sometimes green and sometimes yellow. Blister to abdomen. Volatile julep ʒss. every two hours. Wine panada. Garlic poultice to soles of feet.

June 20th.—Symptoms continue. Treatment continued.

June 21st.—Died.

Autopsy.—Abdomen. The peritoneal surface of this cavity and of its viscera, universally of a clear white pearl colour, and destitute of adhesions.

Stomach. Moderately distended with flatus and contained the last articles of medicine and of nourishment. Its mucous coat for the most part of a white colour, and destitute of injected vessels; yet in the cardiac half, particularly the cul de sac, many of the large veins were occupied with blood, and led to blotches of blood now almost removed; but which were yet sufficiently obvious when the part was held between the eye and a window; mucous coat in left half so softened that it could be readily scraped away with the finger.

Intestines healthy, light coloured, and diaphanous, excepting the duodenum, the internal coat of which was much injected, hardened, thickened, and with much less appearance of valvulæ conniventes than usual.

Liver of a brownish yellow colour, as in intemperate persons, somewhat indurated, and had on its upper surface a hydatid the size of a nutmeg.

Spleen natural, but larger than usual.

Pancreas white, and much indurated.

Uterus and its appendages, healthy.

The shoulder joint had been completely ruined by the original accident, its capsular ligament being torn up all around, and scarce a vestige of it left. The long head of biceps broken, insertion of supra spinatus detached, and head of bone next to deltoides could be thrown about in any direction. The articular cartilages of both bones had been absorbed, and the head of the humerus flattened. A new cavity on the posterior edge of the old glenoid had began to be formed.

Acromion broken at neck—acromio-clavicular articulation destroyed; either the end of the clavicle, or an ossified inter-articular cartilage was in the place of the latter joint.

The seton in passing through the acromio-clavicular articulation, had been introduced into the cavity made by the lacerated state of the capsule of the shoulder joint.

This case, in which there was unequivocally marked gastric irritation, proves, that when an acute inflammation of the stomach has persisted for some days, though it terminates in death, no very great redness of the internal membrane may be manifest, and consequently that it is impossible to estimate the state of irritation of an organ during life, solely by the quantity of blood left in it after death. Dying seems to have the effect of concentrating more and more towards the heart the vital powers, and the fluids, or in other words.

withdrawing them from the circumference to the centre; in the same way that a prudent general, on finding his outposts too much extended for the size of his army, will contract them more and more, as his force diminishes by battle and disease. See Pl. I. fig. 6.

In speaking with Dr. Physick, on the affections of the stomach, he told me that his experience led him to think that the highest grades of its irritation were attended neither by pain nor vomiting. The state of inflammation is so exalted, that its effects approximate those of the most deleterious poisons which cause sudden death without local pain, fever, or any very sensible derangement of the functions, except mere weakness and a sense of illness. The following instance will illustrate this:

Observation 6th. Acute Gastritis.—Henry Turner, a black man, aged fifty-five, assistant in the apothecaries shop, at the Alms-house, after an apparently slight indisposition of a few days, which seemed to require rest rather than any thing else, while sitting up in his bed, suddenly expired almost without a struggle, May 4th, 1827. On dissection, twenty-four hours afterwards, the stomach was found of middle size, thick and dense, its mucous coat thrown into numerous, well-marked, elevated rugæ, and almost universally of a deep arterial red; the red globules of blood were extravasated in numerous spots and blotches in the thickness of the mucous coat and along the summits of the rugæ. This was a patient of Dr. Hodge, and I witnessed the dissection by chance. I declared unhesitatingly that the disease was an exasperated inflammation of the stomach, but owing to the want of an assignable cause for it, as well as the want of appropriate symptoms during life, the opinion was not very readily acquiesced in. In a few days afterwards, it was ascertained through Mr. Marks, the apothecary at the Alms-house, that Turner had been taking private draughts from the bottle of Hoffman's Anodyne; at least, the quantity missing, could be accounted for in no other way.

Observation 7th. Chronic Peritonitis and Gastro-enteritis.—Alms-house, July 26, 1827. Examination twelve hours after death.

John Neaman, aged seventy-seven, has been for two years a resident of this house. For the last nine weeks has experienced a want of appetite, a sense of fulness over the abdomen, and pain in that region, but not so severe as to make him complain, or disquiet him much. Has had no diarrhœa, no vomiting, and no fever which called the attention of persons around. Eight days ago the little food which he was in the habit of taking, produced such a sense of fullness and distress that he determined to take no more, or at least the smallest possible quantity, since then he has taken a little bread, and now and then a spoonful of milk. His complaints being obscure, there has been no medical treatment within those eight days, and scarcely any before. At a distant time, which is not precisely remembered, some tincture of bark was administered by one of the young men of the house. He died seemingly from exhaustion.

Exterior habit. Skin pallid as usual after death. Marasmus not exceeding that common at his time of life.

Abdomen. Peritoneum rough, with universal small miliary bodies, resembling tubercles; thickened somewhat by a coating of coagulating lymph, continuous with the tubercles. Peritoneum, on abdominal muscles and also on diaphragm, interspersed with patches of red blood; small coagula of blood adhering to its interior in many places—and abundant points of the same, as if from ruptured vessels; its cavity contained about three quarts of fluid, half serum and half blood, blended; coagula of blood floating in this mixture. Mesentery studded at distant intervals with these small points of blood.

Stomach. Exterior or peritoneal aspect, pallid and healthy. Internal condition; contained no food, and a little mucus tinged with bile; cardiac termination of mucous coat of œsophagus of a deep red, from distinctly injected vessels; the whole mucous coat interspersed at somewhat distant intervals with small black spots of extravasated blood from half a line to one line in diameter. For three inches around the pyloric orifice, these spots were more abundant and larger.

Small intestine. Mucous coat healthy, but the peritoneal coat of the colour of lampblack in many parts, and more or less of a sooty hue in its whole length.

Large intestine. Exterior or peritoneal face healthy, but dull from the disorganization beneath it. Mucous coat covered with black patches of blood extravasated in its thickness and beneath it; it resembled very much the spotted appearance of some of the sea shells, and contained a small quantity of hardened fæces. Small miliary bodies like those on the peritoneum abounding in it, but I could not distinguish whether they were mucous glands, or such tubercles as existed on the peritoneum.

Liver. Small and flabby.

Spleen. Natural.

Thorax. Lungs healthy, a slight manifestation at very distant intervals on the pleura, of the same sort of action that prevailed in peritoneum—but no effusion except of serum in a small quantity which might have occurred after death.

Head not examined. See Pl. I. figs. 7, 8, 9.

The following are examples that redness is not found invariably in those exalted irritations of the stomach producing immediate death.

Observation 8th, Jan. 28th, 1827. *Gastric Irritation.*—The daughter, aged eight months, of Mrs. A. D. without previous indisposition, and while playing in apparently excellent health on the lap of her aunt, was taken with a sudden spasm, and died instantly. This occurred after a hearty draught of cow's milk, on which the child was accustomed to feed.

The day following I made an examination, twenty-four hours after death, with Dr. James, the family physician, and the following appearances were presented:—

Head. The flat bones much tinged with congested blood. The veins of the pia mater turgid. Serum under tunica arachnoidea: a drachm of serum in the right ventricle of the brain.

Thorax. Every thing natural.

Abdomen. About one gill of a cheese-like coagulum of milk in the stomach. The serous part had been continually running out of the mouth and nostrils since the death of the child, so as to require the constant use of cloths to soak it up, the quantity, therefore, could not be rigidly estimated, but probably did not fall short of two gills. *The mucous coat of the stomach was not vascular, but of a pearl colour.*

All the mesenteric glands were very much enlarged, but had nothing of a scrofulous consistence or texture.

The child, owing to the ill-health of the mother, had been weaned at the age of one month, and brought up on cow's milk. That the coagulum formed from the latter was indigestible perhaps from the quantity, is proved by the fact, that pieces of it tinged slightly with bile, were found in the lower part of the jejunum. It is pretty clear in this case, that the undue quantity of coagulum in the stomach was the cause of death.

Observation 9th, March 29th, 1826. *Gastric Irritation.*—Yesterday the infant daughter, aged ten months, of Mr. W. H. was seized, in a short time after eating half a table-spoonful of rice pudding, with convulsions. The insensibility was complete, and the spasm universal: respiration was carried on with the greatest difficulty, irregularity, and interruption. This was at half past four o'clock, P. M. Happening to pass the house, almost at that instant, my assistance was requested; in a few minutes, Drs. Hodge and Griffith arrived.

A warm bath was immediately resorted to. Three grains of tartar emetic were dissolved in a wine-glassful of water, and administered by the tea spoonful, every five or ten minutes. The attempt to raise a vein in the arm being ineffectual, I opened on the right side of the head, three superficial veins, and on the left side two, along with a branch of the temporal artery. From these several openings, about three and a half ounces of blood were drawn. About three-fourths of an hour were thus consumed, when the convulsions ceased. As the infant was teething, the gums were then cut with a lancet.

The child was an unusually fine one; had to the moment of illness enjoyed most excellent health, and had, indeed, been out on a visit to its friends that very morning. The indication seemed, therefore, sufficiently marked, that the rice pudding, along with a prune which had been eaten in the morning, was the cause of the convulsions, and that these matters, if possible, should be expelled from the stomach.

As, notwithstanding the cessation of the convulsions, the insensibility and difficult respiration still remained without much mitigation, about twenty-five grains of pulv. ipecac. in three tea-spoonfuls of brandy, were administered in divided doses, at small intervals of time. This not producing the desired effect, a tea-spoonful of powdered mustard was given by portions, which also failing, twelve grains of sulphate of zinc were next given in divisions. This also failing, we next resorted to tickling the fauces with the finger, and to the introduction of a feather down the œsophagus, almost to the cardiac orifice of the stomach, some five or six times; still there was no vomiting induced. These several trials occupied until 8 P. M. when the child revived very much, and was able to sit up.

It should also be mentioned that sinapisms had been, during our efforts, applied to the soles of the feet and to the epigastrium; and that two or three injections of spirit of turpentine had been administered, with the effect of purging as often.

About 10 o'clock, P. M the infant seemed to recognize persons, smiled on being addressed in a soothing, playful manner, and afforded a prospect of recovery. At half past twelve o'clock at night, after a slight convulsion, it died.

Autopsy, seventeen hours after death, the weather being moderate, and no putrefaction.

Head. Vessels of pia mater so congested with blood as to be almost apoplectic. Brain congested also.

Abdomen. Stomach flaccid and of the middle size, contained the rice pudding undigested, with a small part of the skin of a prune; its mucous membrane of a light pink colour. The mesenteric glands were enlarged and numerous: the child had been fed occasionally on cow's milk.

Dr. Physick informed me that he had saved a child, affected in a similar way, from eating a piece of pear. During the prevalence of the convulsions, the child not being able to swallow, a large quantity of tart. emetic and ipecacuanha was injected, by a syringe, into the stomach, through a catheter introduced down the throat; the piece of pear was thrown up by vomiting, and the child saved. He also told me that Mr. L. once lay in a stupor for several hours, from swallowing some article of food extremely difficult to digest, he also was relieved by its expulsion.

Observation 10th. Softening of the Stomach.—In the summer of 1825, I dissected, for Dr. Otto, an infant child, (about two years old,) of Mrs. S. S. who was unwell for a week, without there being any well marked symptoms of the nature of its disease. I found the left extremity of the stomach disorganized in all its coats, having been reduced to a light mahogany coloured and pulpy state, about the consistence of a piece of glue soaked in cold water for twenty-four hours. Having no suspicion at the moment of such a state of the organ, I lacerated it, inadvertently, while only using a common force in drawing it upwards for examination. There was no undue redness in the mucous coat.

The brain of this child was large and somewhat congested, but not to a remarkable degree.

Observation 11th. Softening of the Stomach.—Dr. La R. of this city, lost a child, in 1826, about four weeks old, in whom I found the stomach in a similar state of dissolution or softening. There had been, however, much pain in his infant, and flatulent tension of the abdomen.

These observations upon the stomachs of children, illustrate sufficiently the fact, that the most extreme irritations of the stomach may exist during life, and may even be fatal, but yet not be manifested after death by unusual redness of the tissues affected. It would be indeed unphilosophical, and inconsistent with pathological observations on other parts, to exact from the stomach an invariable manifestation of disease, by redness and injection of its mucous surface after death. Let the redness of the skin in erysipelas be ever so strong during life, it frequently disappears wholly, by the retreat of the blood from its capillaries during death. Measles are similar in this respect, and the fact already mentioned is very worthy of attention, that if a fine injection be thrown into a subject who has died at the height of the eruption, the vessels originally dilated by the irritation, manifest themselves by the greater quantity of injecting matter they receive; or in other words, the eruption may be renewed after death, as I have satisfactorily ascertained by experiment. If any conjec ture could be hazarded on these points, we are disposed to believe that during the process of death, the vitality of parts in a state of inflammation is frequently so far diminished that they no longer have the power of attracting the fluids in undue quantity to them, consequently their redness disappears.

Acute inflammation of mucous tissues generally only thickens inconsiderably the part affected. It is attended by an increased secretion of mucus, of serum, of fibrino-mucous matter; and even an exhalation of red blood, from the blood-vessels being so extremely superficial. We see continually these phenomena going on in inflammation of the Schneiderian membrane and in colitis.

It has been seen that if an acute inflammation of the gastro-intestinal mucous membrane does not kill in its early stages, the injection with red blood is frequently by no means so great as it would have been in the case of an earlier death, and the changes which I have generally observed, are as follow:—The stomach and bowels assume a dirty yellow or liquorice colour, the stomach presents internally small blotches of red at intervals, and frequently are found small filaments of coagulated blood adhering to the mucous coat of the stomach, seemingly at the orifices of the vessels from which they were discharged. The veins of the bowels are either partially or generally filled with blood. The intestinal mucus is abundant, adheres closely, and is tinged yellow by the bile. The mucous membrane of the stomach is easily pealed or scraped off by the finger nail. The brain in this state most frequently exhibits marks of congestion, and with some inflammation of its meninges. The eyes and skin are yellow. In the skin there are apt to be left blotches of red blood, resembling purpura.

Yellow Fever.—In my notes of dissections, performed on four yellow fever patients, in the year 1820, I find the following remarks. In a female patient, aged forty, whose period of the disease I did not learn, the stomach contained a gill of black vomit, was of a natural thickness and texture, and presented over its whole mucous coat in different regions, patches or blotches of extravasated blood. In a seaman belonging to the brig Martha, who had been sick at least nine or ten days, the stomach contained also black vomit, and was beset with small red points and spots of ecchymosed blood. In a third patient, a man aged forty, who complained slightly in the morning of one day, and was dead the next at seven o'clock, A. M. I found the stomach extensively ecchymosed in its mucous coat, and its veins distended with blood; the black vomit was in great abundance in the stomach and intestines. In the fourth patient, a girl aged fourteen, who died on the fourth day of the disease, the mucous coat of the stomach and small intestine did not present the appearance of ecchymosis, but merely a minute arborescence of its veins.

Observation 12*th.* *Acute Gastritis.*—During the month of July of the year 1826, I lost a patient, Jno. Henderson, aged about sixty, from a violent remittent fever of about eight days duration, attended with great prostration of strength, tenderness in the epigastrium, irritability of stomach, high fever with coma and occasional delirium; a saffron-coloured skin and black tongue attended the last days of his disease. I examined him in the presence of Drs. Hodge and La Roche; the peritoneal surface of the abdomen and of its viscera we found healthy, but the mucous coat of the stomach presented in its cardiac portion a large motley patch of ecchymosed blood, as big as the palm of my hand; it also presented smaller patches of ecchymosis in other regions His symptoms were with the exception of black vomit, of such intensity, that his case would, in times of yellow fever, have been set down to that disease.

The same patched appearance sometimes is extended into the intestinal canal.

Observation 13*th.* *May* 30, 1827. *Gastritis.*—I dissected Edward Bloom, aged thirty-eight, a patient in the Alms-house. After a debauched course of life of some continuance, he was brought into the syphilitic ward, for a sloughing ulcer of penis, with mortification of the adjoining skin, without any well marked sympathies, except a general prostration of his intellectual and physical powers; he died in five or six days after his admission. Though there were no prominent gastric symptoms as extreme irritability of stomach, tenderness in the epigastrium, &c. we yet found the left end of the stomach, the jejunum, and the ascending colon in a patched ecchymosed state, with here and there mahogany coloured spots along the intestinal tube, arising from the collection of blood. The yellowish, semi-putrescent tinge which the intestines under such circumstances are apt to have, was also present.

From the liability we are in to confound the redness of the stomach indicative of its inflammation during life, with the redness depending upon an obstruction to the circulation during the agonies of death, a principal object of the preceding pages has been to point out their difference, and to establish the important fact of gastric inflammation in most of those cases where the redness is observed. It is now proved that the redness arising from simple congestion, like the redness from injection, is uniformly diffused, whereas the redness from inflammation is generally partial and in patches, sometimes in the mucous membrane of the cardiac extremity of the stomach, and sometimes in that of the pyloric extremity.

Simple obstruction to the current of blood during the agonies of death, could never produce such appearances, for if it could, we ought to meet with them invariably. On the contrary, where an obstruction does occur, which I am disposed to believe is very uncommon in natural death, whether this obstruction arises from the liver or from the lungs, the arrest of blood should be manifested by an uniform tinge of red in the organs concerned, and not by patches here and there. Such marks of obstruction should also be more frequently seen and better developed, in cases of enlarged, indurated liver, in consumption, in dropsy of the thorax, and in all cases of obstruction of the lungs.

In concluding these observations, I should do injustice to an artist of uncommon merit and ingenuity, were I to withhold the marked expression of my sense of the invaluable services rendered by Mr. Drayton, in promptly and faithfully executing the drawings of the parts represented in the plate, and in subsequently executing the engravings; I have also to acknowledge the characteristic liberality of the publishers, in freely allowing me the advantage of an unrestrained use of his talents.

Art. II. *On the Functions of the Capsulæ Renales.* By John Redman Coxe, M. D. Professor of Materia Medica and Pharmacy in the University of Pennsylvania.

It is now nearly three centuries* since Eustachius published his book "De renibus," in which, for the first time, the capsulæ renales are pointed out and described. Notwithstanding, however, the long period that has elapsed since their discovery, their use in the animal œconomy still remains a mystery, almost as many offices having been attributed to them, as there have been writers on the subject. It is my intention to point out what I conceive to be their function; and, although, when I first took up its consideration, I believed the opinion I entertain was original; yet, on recurring to our authorities in anatomy, I found that others had conceived a similar idea, though the opinion seems not to have been very zealously maintained, even by the individual who first suggested it; while it had been most powerfully opposed by every other writer. Molinetti, who flourished about a century and a half since, and Charles Bell, are the only anatomists who seem to have advocated the opinion, that the capsulæ renales, were merely diverticula of blood, from the kidneys, to prevent the secretion of urine in the fœtal state; yet so little have they said to substantiate their opinion, that it appears more like a random thought, than the result of a deliberate and serious reflection.

---

* In 1563.

It being obvious that both in a physiological and pathological point of view, a correct opinion of the functions of any part of the body, is desirable, and must be of practical utility to the physician and surgeon, on many occasions; any attempt to fix the functional character of these bodies, must be considered as advantageous.

The capsulæ renales are almost universal in quadrupeds, whether carniverous or herbiverous—in birds—in cold-blooded reptiles; and perhaps, we may say, generally, in every animal, in whom a renal conformation exists. By consulting Haller's Physiology, 7. p. 286, et sequent. we find that different anatomists have noticed them, in the dog, fox, civet, lion, tyger, bat—the horse, ox, elephant, sheep, goat, stag, hedge-hog, porcupine, mole, dormouse, sow, marmot, and many others—in the serpent, viper, tortoise, &c. and in the eagle, vulture, crow, duck, swallow, &c. Now from this we infer, that what is so universal, must be of some great and general utility; and that any explanation of the functions of these bodies, must indubitably rest, in a great degree on this fact. In man, they have never, that I can learn, been found wanting; nevertheless, anomalies in this respect, may have occurred, although unnoticed. They rarely differ in number, being usually the same as the kidneys themselves. It may, however, be an interesting subject of investigation, whether, in case of a single kidney, more than one capsule exists; or if three or more kidneys are found, an equal number of these capsules are not also present. Bartholine mentions a case in which four were seen by him; though Haller thinks it probable that two of them were only lumbar glands. He tells us also, that Morgagni saw three; and Rhodius, two on the left side. These anomalies are, however, of little comparative importance; and we may venture to affirm, that, except in a few cases of monstrosity, the number of these bodies will always be found equal to that of the kidneys; and this fact serves in some degree to establish their intimate connexion with or subserviency to those glands, in some period of existence.

I shall enter into the anatomical structure of these organs, so far only as is requisite to elucidate the position I assume, as to their use in the animal economy; referring those who feel an interest in the inquiry to our systems of anatomy for further particulars.

From the general description of all anatomists, we learn that on the upper edge of each kidney, is found a particular body, having some analogy to a gland, but differing therefrom in *no excretory duct having ever been detected.* Its form is very various, and probably dependant on the age of the subject, it having been seen quadrangular, triangular, orbicular, and oval. It is somewhat like the kidney, being larger above, and ending, as some have described it, in a kind of conic figure; all which varieties, as above remarked, are probably owing to the age of the individual in whom they have been examined. What is of greater importance, is, that with very few exceptions, they are always larger in the fœtal than in the adult state; in fact, before birth, they are mostly larger than the kidney itself, but gradually diminish in size, after birth; and in the adult and aged subject, they are very small, when compared with the kidneys themselves.

These organs are uniformly described as being largely supplied with blood-vessels; the arteries, coming from the aorta, and the renal and diaphragmatic arteries; the veins from the vena cava and from the renal and diaphragmatic. Some slight variation is occasionally found; for the vessels are not always alike numerous, nor do they invariably proceed from the same sources.

The interior of these bodies has a narrow, triangular cavity, varying in size, probably from the difference of age; and in colour likewise from the same cause. A granulated or follicular substance usually fills the cavity, which cavity is connected with the veins, as it may be distended by blowing air into those vessels. The capsular vein communicates with the inside of the capsule, like the splenic vein with the cells of the spleen.

In conformation, these bodies are generally more regular, solid, and consistent in the fœtus and young children, than in adults. In old age, they often become flaccid; and are much decayed.

From these data it would seem correct to infer, that, whatever be their use, that use is restricted chiefly to the fœtal state, and that all inquiries as to their physiology must chiefly be limited to that period of life.

Eustachius, their first discoverer, called them glandulæ renibus incumbentes. Bartholine gave them the name of capsulæ atrabilariæ, Casserius that of the renes succenturiati, and Diemerbroeck, glandulæ renales: but all these names, founded on their presumed uses, are manifestly incorrect. The non-existence of an excretory duct, proves them not to be glands within the genuine acceptation of the term; and the uses assigned by different writers to them, not having been proved, the names assumed cannot be considered as well-founded, and ought to be expunged from the systems of anatomy.*

---

* See note at the end of this essay

Any person desirous of informing himself fully on the subject of these bodies will find an ample detail in the Dict. des Sciences Medicales, v. 47, p. 412, in which, all that has heretofore been said of them is reported. We learn, that, as before stated, they are much developed in the fœtus; but that, as soon as birth takes place, the descent of the diaphragm in respiration impedes their further growth, and from that time they may be said to diminish in size, whilst that of the kidneys progressively augments. There can, I think, be little doubt that the pressure of the diaphragm upon them, must have a considerable influence in diminishing the flow of blood to them; and thereby compel that fluid to pass in a greater amount to the kidneys, when their functions as diverticula are thus arrested. This serves in a measure, to explain why the use they may have exercised in the fœtal state is no longer required after birth—the blood now passes directly to the kidneys, in larger amount; and vessels, heretofore merely kept pervious, are enlarged, by the cessation of the office of the capsules now no longer required. In this we perceive some analogy with the lungs, through which, undoubtedly, a small portion of blood must flow, to keep those vessels pervious, which, after birth, are destined to circulate the whole sanguineous stream, when the diverticula of the ductus arteriosus and foramen ovale are suspended in their operation.

Molinetti, as I have already stated, considered the renal capsules of use, only to *prevent the secretion of urine* in the fœtus; his luminous conception of the subject seems, however, to have met but little attention; objections, indeed, were raised against his opinion, which appear to me more specious than valid. Thus it has been asserted that the renal capsules ought not to be looked upon as simple receptacles—as there would have been no occasion for their wonderful structure on this account. Certainly this objection, backed by no other proof, than what the author thinks ought to be the case, can scarcely be deemed conclusive. The spleen, in all probability, with a formation equally wonderful, serves some similar purpose in the animal economy.—It has been also affirmed, that it *is certain*, (of which no proof is given,) some secretion is performed in them. Now, if this be the case, it is most extraordinary that no excretory duct has ever been discovered in all the attempts for this purpose; and HALLER doubts whether they do secrete a humour peculiar to themselves. No fluid is found in them in the adult state; although in children, and especially in the fœtus, they do contain a small quantity of a yellowish or reddish humour, the remains probably of the blood that passed there. Another objection to Molinetti's opinion, is, that it supposes the fœtus to make no water, which it is presumed is overturned by the affirmed discovery of the allantois, by Bidloo. Now I believe this idea, at least as it respects the human fœtus, is no longer maintained; and as it relates to the analysis of the amniotic fluid, we find little to countenance the presence of urine or its constituents, therein, which might be presumed to be mixed with it, through the medium of the urethra. It has also been said, that it could not be conceived, how such small arteries should intercept so great a quantity of blood. To this it may be said, that the arteries, if small, are numerous, and the fœtal pulse is probably infinitely more rapid than after birth. At any rate, it is an objection not established by any fact, and may therefore well be considered as of no force.

Let us, however, consider for a moment a question of fact. viz. Does the fœtus in utero secrete urine?

Bartholine, speaking of the membranes of the fœtus, adverts to the allantois, (a term derived from the Greek αλλας, signifying a sausage, from its being a sort of elongated vessel, which does not surround the whole fœtus, but is rather like a girdle,) situated between the chorion and amnion, and communicating with the bladder by means of the urachus. Its use, according to Bartholine, is to receive the urine in brutes; for in man, he tells us, it is not present. In man, he adds, the amnion receives the urine, mixed with the sweat. This membrane has however been denied existence even in brutes, by some writers; its existence is nevertheless said to be very manifest in brutes during gestation, (Dict. des Sc. Med. 1. p. 410;) but is with difficulty seen in the human ovum, being only met with from the second to the fourth month of gestation, nor are we sure that it communicates with the bladder. We may moreover add, that some writers have endeavoured to prove, that, even in animals, it is not intended to receive the urine, but that it transmits to the bladder, by the urachus, the fluid it contains, to serve for nourishment to the young individual. We may I think safely set this down as hypothetical, and admit that the particular use of the allantois is altogether unknown. If then the human fœtus wants this receptacle, (which indeed for the mere purpose of receiving the urine, seems altogether unnecessary, in either man or brutes, as the bladder might be presumed adequate,) it should follow, that any urine secreted in the fœtal state, ought to be found either in the bladder, or intermixed with the liquor amnii. We have however no reason to believe that this last is the fact, since the analysis of that fluid by Buniva, Vauquelin, Berzelius, and others, proves sufficiently that all the characters of urine are wanting in it, (see Johnson's Animal Chemistry;) and as it respects the existence of urine in the bladder, no fluid of any amount has been detected therein. What little has been found, seems indeed to want the requisite of urea and of many of the saline ingredients which are noticed in it after birth. Independently of this too, the amount is far too small for any reasonable views on the subject, founded on calculation. Haller states the quantity of urine discharged by the adult, to be from twenty-eight to sixty-four ounces in the twenty-four hours. Now, if we consider the fœtus as only beginning to secrete it when five months old, it will leave four months or one hundred and twenty days to the period of birth. Suppose we take the moderate quantity of only half an ounce per day, secreted during that space of time. This will be nearly equal to four pounds, which ought to be found in the bladder or in the liquor amnii at birth; but we have stated that analysis gives no evidence of the presence of urine in the last; and instances are recorded in which the urethra was closed at birth, but in which no fluid was present in the bladder. We have, therefore, a right to ask of those who contend for this secretion in the fœtal state, conclusive evidence of the fact, but which we believe cannot be given, nor any satisfactory channel pointed out by which it may have escaped. We may then admit, I think, that in the period of gestation, only so much blood percolates the vessels of the kidney, as will suffice to keep them pervious for their important functions after birth; whilst the full amount which, according to the laws of circulation, would otherwise be conveyed through them, is diverted off, by the renal capsules, and carried immediately back into the vena cava.

VAUGHAN in his anatomy, 2, p. 132, adverting to this opinion, that the capsules are to be regarded as diverticula in the fœtus, to divert the blood from the kidneys, and lessen the amount of urine, adds, "but if so, why do they remain in adults, and not disappear like other diverticula?" Now what are the diverticula of whose functions as such we are assured? The ductus arteriosus and foramen ovale, are perhaps the only unquestionable ones we are acquainted with, and their vestiges are conspicuous to the latest period. The thymus gland is probably of a like nature, and it never entirely disappears. If the spleen is of a similar character, we find it continuing its functions to the end of life. Is there not however full as much necessity apparently, for a diverticulum for the blood from the kidneys in the fœtal state as from the lungs? Both of these organs seem to come fully into operation only after birth; and of all the uses ascribed to the capsules, not one is found to quadrate with fact, as well as with reason, but that which ascribes to them the functions of diverticula, as a wise provision of nature, to guard the kidneys from the overflow of blood, which, by the common laws of circulation would otherwise be carried to them. All other uses are incongruous, and entirely hypothetical, with scarcely a solitary fact to give them the slightest credit. As to their continuance in the adult state, notwithstanding their evident and acknowledged decrease, it is very possible, nay probable, that their functions are never absolutely terminated. The numerous instances recorded, of immense amount of urine in the bladder in certain cases of retention, and the surprising instances of long-continued suppression of urine, appear, alike to prove that some diverticulum has been called into operation to arrest the fatal issue of those complaints. If, in cases of retention, the average amount of two pounds may be supposed to be secreted daily, as formerly adverted to, then, in proportion to the number of days during which the disease continues, we ought to find in the bladder an equal number of quarts of that fluid; but is it ever in that amount? Does not nature, here, in order to obviate in a degree the effects of disease, enable the renal capsules to resume their original functions? I think it at least probable. Again, in cases of suppression for days, what becomes of the blood determined to the kidneys, if not conveyed away by some other channel? How could a total suspension of the secretion of urine ensue, the kidneys being found after death in many instances free of disease? Death indeed does not always follow even the most extended cases of this nature, of which the following are a few of many instances on record. La Motte, (Traité complet des Accouch. p. 567.) mentions the complete suppression in a woman of sixty years, for seventeen days. The first discharges on recovery being bloody, but gradually passing to the state of urine. Desault, (Traité des Mal. des voies Urin. p. 32,) says, that in hysteric affections, the suppression has continued for more than forty days. In the Dict. des Sci. Med. 47, p. 429, are several cases—amongst others, one of a patient of fifty years, reported by M. de Claubry, continuing for nine days, and another from Dr. Vieussen, of a little girl, eleven years of age, who had for eighteen months a total suppression, from which she recovered. In both cases, the suppression of so important a secretion was unaccompanied by those frightful symptoms commonly existing. There is another still more extraordinary case given, of a suppression continuing for seven years, from which the patient recovered, and died many years afterwards of another disease. Now, in all these cases, it is scarcely possible to resist the impression, that the danger was obviated by means of a diverticulum—and if so, what more probable than the resumption of their original functions by the renal capsules

If more cases of a like character are required, they may be found in the philosophical transactions of Great Britain—especially one of a boy, who never made water, but lived in perfect health to his seventeenth year, a constant diarrhœa attending. This is related by Dr. Richardson, V. 28, p. 167.

BOERHAAVE had an idea of the urine that it served as a means of expelling the portion of our humours tending to putrefaction, and which is calculated to bring others into the same septic disposition—how far this is correct, I shall not pretend to say; our present views in relation to it, seem to be, that it is intended to convey away the salts introduced into the system, or which are formed by the actions of life. If either view be adopted, we may perceive, why, in the fœtal state, the secretion of urine can scarcely be said to take place, inasmuch as any, then formed, is deficient in the characteristic property of urea, a substance of a very singular nature, and consisting of a predominancy of nitrogen, which is nearly 40 per cent. in amount of that principle. The kidneys may then be regarded as the principal channel for conveying off the nitrogen, as the lungs for carbon, and perhaps the liver for hydrogen; but as this principle does not predominate in the fœtal state, it of course does not require to be then discharged, and the kidneys only take on their perfect functions, when an excess of nitrogen is introduced, requiring elimination, viz. after birth. Of course, all that is requisite in the fœtal state, is merely that the vessels of the kidneys be kept pervious, whilst the excess of blood, carried off by the diverticulum of the renal capsules, finds its way to the mother, and has its azotic portion eliminated through her kidneys.

I shall only add further, that these organs are the seat of disease, as demonstrated by dissection; thus GREISELIUS found the left capsule, in a man of forty-five years old, of great size; concealing an abscess filled with twelve pounds of putrid sanious matter, which being evacuated, the capsule weighed more than two pounds. PORTAL mentions a boy of two months, in whom the capsule was filled with a liquor like the blackest ink, and was larger than a pigeon's egg. BLASIUS mentions a woman of fifty years old, in whom the capsule was equal to the fist, soft, reddish, and filled with black purulent matter, and with much gravel and sand; and Bartholine states the right capsule in a melancholic patient, to have been longer and larger than the spleen, and to have had a double cavity.

Upon the whole, after duly considering the subject, I am more than ever convinced, that no other use can be ascribed to the renal capsules, than that of diverticula in the fœtal state; and that the probability is, that their functions are never entirely suspended: at least that on many occasions of disease, they resume in a certain degree their former functions, and thereby co-operate in suspending the fatal issue of many cases, which would otherwise occur. If I am correct in the positions thus advanced, I think all the names by which these organs have been hitherto distinguished, should be abolished, and that of *diverticula urinæ* should be substituted in their place.

NOTE.

Perhaps a succinct account of the various opinions of the uses of these organs, may not be improperly introduced here; that the reader may compare the probabilities of each. *Eustachius*, their discoverer, seems to have acted with uncommon modesty, in not venturing to assign any use to them, that I can find; he merely calls them the renal glands, from their vicinity to the kidneys. *Casserius*, *Bauhin*, and others, were persuaded they aided in the secretion of urine—hence the name of succenturiatæ glandulæ. *Spigelius* supposed them made to fill up the space between the kidneys and diaphragm, to support the stomach in the part above the emulgent veins and arteries; and also to absorb the moisture that sweats from the neighbouring vessels. *Wharton* and *Riolan*, by whom they were named glandulæ ad plexum positæ, gave them that appellation, because they cover the semi-lunar ganglions, and the beginning of the plexus, which the great intercostal nerve forms in the belly: and they thought their sole use was to support these plexuses—considering, that otherwise they would have pressed too much on the emulgent veins. *Sylvius* imagined an acrid juice was separated in the capsules, which, mixed with the blood returning from the kidneys, after the secretion of urine, served to dilute it and excite the action of the vena cava upon it. The elder *Bartholine*, (Gaspard,) having found them filled with a fluid of an obscure brown colour, believed them to be the secretory organ of the atrabilis; and that this humour was taken up by the capsular veins, and carried to the kidneys by means of the renal veins: hence he gave them the name of capsulæ atrabilariæ. Gaspard was unacquainted with the circulation, and is considered excusable in his ideas; but *Thomas*, his son in defending the opinion, in opposition to his knowledge of the circulation, says that the atrabilis, thicker and heavier than the blood, might have in the capsules and renal veins, a *retrograde motion* from that of the blood, in order to reach the kidneys—and *Petrucci*, a Roman physician, not much more than half a century past, even affirmed that he had discovered valves in the capsular veins, disposed contrary to those of other veins, and fitted to favour the passage of the atrabilis to the kidneys. Bartholine moreover considered them as separating from the blood, the colouring matter of urine.

Some authors have made them the seat of various passions. *Collins* says their use is to impart a fermentative liquor flowing out of the termination of the nerves, by some direct passages into the body of the glands belonging to the kidneys, to dispose the blood in order to the secretion of the serous and saline parts from the vital liquor. *Kerkringius* ascribed to them a power of secreting a juice fitted to colour and animate the blood. *Valsalva* thought he had discovered their communication with the testicles, and that they aided in the seminal secretion. *Senac* supposed they secreted the fœtal meconium —and *Van Helmont*; that they secreted a juice endowed with lithontriptic powers, created by his archeus, to prevent the formation of renal calculi. *Lieutaud* viewed them as separating an acrid, penetrating liquor, very fit to prevent the formations of concretions in the vena cava. *Boerhaave* assigned them the function of correcting in the blood that flows from the kidneys, the fluidity of that liquid, impoverished by the loss which the secretion of urine causes. *Tauvry* thinks they serve for almost the same use with the membrana adiposa, straining out a liquor, which by its long stay, becomes oily, then throws it into the veins, whereby the blood, stripped of its fluidity by the secretion of its serous parts recovers its former state, &c. so that they do the same office to the blood of the cava, that the omentum does to that of the porta.—These are probably sufficient, I shall therefore only further mention *Morgagni*'s opinion, or rather conjecture, for as such does he offer it, viz. that probably a humour filtered into the cavities, fitted to fill the receptaculum chyli and thoracic duct whilst the infant remained in utero, a time in which these parts receive no chyle from the intestines.

The opinion of Molinetti, which I most cheerfully credit him with, is in my estimation, so very superior to all the above crude and indigested notions, that I shall say no more on the subject. Morgagni's is the only one, I should regard as the least plausible; and I think, had he ascribed to the, (so called,) thymus gland, those functions thus given to the renal capsules, that he would have probably been correct in such an opinion; an opinion I believe not before taken of that organ, but which a frequent reflection on the subject has led me occasionally to adopt, although I am far from laying any stress upon it, and consider it, (as Morgagni did his views of the uses of the capsules,) more in the light of conjecture, than as being founded on any fact of sufficient importance to give it the character of truth, further, than the apparent necessity of some fluid passing through the thoracic duct and receptaculum chyli, in order to keep them pervious for their important office after birth. By an accidental reference to Horner's Anatomy, I think the position assumed of the functions of the capsules is considerably strengthened. In a note, the doctor mentions the presence of this body, in a case of deficiency of the kidney.

Art. III. *Case of Paruria Erratica, or Uroplania.*[*] By Salmon A. Arnold, M. D. of Providence, R. I.

MARIA BRENTON, aged 27 years, of sound constitution, generally enjoyed good health until June, 1820, when she was afflicted with a suppression of the catamenia, accompanied with hæmoptysis. The medical attendants, irregular practitioners, bled her profusely every other day, and after the system had become greatly debilitated, injudiciously administered emetics, the operation of which was succeeded by a prolapsus uteri, and a total inability to perform the function of urinary excretion. In this state she continued for nearly two years and a half without any alleviation of the disease, though for the most part of the time under the care of respectable physicians. The urine had been drawn off by the catheter, generally every twenty-four hours, but when this was neglected, she often perspired very profusely about the lumbar region.

---

[*] Some account of this very singular case, has been published in a Journal of limited circulation.

In September, 1822, soon after I first saw her, the bladder not having been emptied by the catheter for seventy-two hours, the urine found an outlet by the *right ear*, oozing drop by drop, and continued for several hours after the bladder had been emptied. The next day, at five o'clock, P. M. the discharge from the ear again commenced and continued about as long as on the preceding, but a larger quantity was poured out. The fluid was thrown on a heated shovel, and gave out the odour so peculiar to urine, indicating the presence of urea. The discharge was repeated daily for several days, oozing out guttatim, commencing earlier, increasing in quantity, and being discharged in less time; then twice a day, at three and seven o'clock, P. M. varying but very little for some days; then three times a day, at two, nine, and eleven o'clock, P. M. and continuing subsequently four times a day, at ten o'clock, A. M. and four, eight, and eleven o'clock, P. M. increasing gradually in quantity, and being discharged in less time, until a pint was discharged in fifteen minutes in a stream about the size of a crow quill; then becoming more irregular, being discharged every four hours, and increasing in quantity, until eighty ounces were discharged in twenty-four hours. The discharge from the ear was accompanied by a severe pain over the right eye and about the right ear, with a distressing sensation of fulness. The pain commenced early in the morning, and continued to increase in violence until after the discharge from the ear, by which it was relieved.

When the urine was not discharged at the usual period, or much diminished in quantity, the pain and distress were most excruciating, producing delirium, during which confinement was frequently necessary to prevent her from doing violence to her head. Sometimes a deficiency in the discharge would produce delirium, apparently without much pain; she would then laugh, sing, and converse very incoherently, though frequently with an unusual degree of wit and humour. At other times she would be seized with violent spasms, resembling opisthotonos: and after continuing in this situation for a few minutes, the muscles becoming relaxed, she would heave a deep sigh, and then swoon, and remain in an insensible state for about half an hour, when she would sob, perhaps open her eyes, and after repeatedly sighing would again become insensible. In this condition she would frequently remain for more than twelve hours in succession. Sometimes the spasms would be unaccompanied with swooning; at one time her jaws were firmly closed for twenty-four hours, so that it was impossible to force them open, and at another time they continued closed for more than three days. The swooning would frequently be unaccompanied with spasm, and she would continue insensible for more than twenty-four hours, the pulse imperceptible at the wrist, and respiration only perceptible by the nicest observation. The sight of the right eye was soon destroyed, and frequently that of the left was so impaired that she could not distinguish any object across the room, but the latter is now entirely restored. The hearing of the right ear is much impaired, she cannot distinguish sounds with it, and there is a constant confused noise heard by her like the roaring of a distant water-fall. For a short time previous to the discharge from the ear, there is a very audible noise, resembling that produced by water slowly dropping into a vessel, which may be heard at the distance of several feet. She has no power, excepting by an inclined position of the head, over the discharge, previously to which there is a painful sensation of fulness and a burning heat about the right ear. The next outlet the urine found was by the left ear, a few moments previous to which discharge, a noise is heard similar to that noticed in the right ear: she cannot hear distinctly for ten or fifteen minutes before and after the urine passes off. This discharge is very irregular, sometimes three or four times a week and then is discontinued for months. Soon after the discharge from the left ear, the urine found another outlet by the *left eye*, which commenced weeping in the morning and continued for several hours, producing considerable inflammation. It continued three days and then ceased; a sufficient quantity of the fluid was saved to test its properties; in which, as well as in appearance it did not differ from the discharge from the ear.

In the summer of 1824, it recommenced and continued daily for about six weeks. An account of the quantity of this discharge may be found in the appendix.

On the 10th of March, 1823, urine began to be discharged in great quantities from the *stomach*, unmixed with its contents. The greatest quantity was generally discharged in the morning before taking food, but it was frequently discharged soon after food had been taken with which it was often entirely unmixed. This discharge has been more regular than from the left ear and eyes, but less so than from the other outlets.

On the 21st of April, the *right breast* became tense and swollen, with considerable pain, and evidently contained a fluid, a few drops of which oozed from the nipple. The swelling and pain continued about twenty-four hours, and then entirely ceased for about a week, when it again returned, and there was discharged a light yellow fluid resembling urine. On the 29th, one ounce was caught in a nipple shell, which, by analysis, was found to contain urea. This discharge has been very regular up to this time. Urine has been discharged occasionally from the left breast, an account of which may be found in the appendix.

November 20th, 1823, the urine from the breast became milky, having the appearance of milk considerably diluted with water: this continued until December 12th, when it gradually resumed its usual colour.

May 10th, 1823, the abdomen about the hypogastric and umbilical region became violently and spasmodically contracted into hard lumps, and a sharp pain was felt shooting up from the bladder to the umbilicus, around which there was a severe twisting pain: in a few days subsequently a loud noise was heard, similar to that produced by drawing a cork from a bottle, and immediately afterwards urine spirted out from *the navel*, as from a fountain. This discharge has since continued, and has rarely been interrupted for many days. Nature wearied in her irregularities made her last effort, which completed the phenomena of this case, and established a discharge of urine from *the nose*. This discharge commenced on the 30th of July, 1823, oozing in the morning guttatim and increasing in quantity every day until it ran off in a considerable stream. It continued daily for about two months, when it ceased until the summer of 1824, and then again commenced, and continued almost daily for some months, since when, it has entirely ceased. All the fluids discharged were found by analysis to contain urea.

The following is the analysis of the fluid discharged from the right ear, made in New Haven, under the direction of Professor Silliman. "Alkaline sulphates were indicated by muriate of barytes and acetic acid; muriates were detected by nitrate and acetate of silver, and by nitrate of mercury; phosphates were ascertained to exist by the addition of caustic, ammonia, and lime water. Urea was obtained in the usual manner, by evaporating the fluid, and redissolving in al cohol, and again evaporating." The urine discharged from the ear was, during the first six months, hotter than that from the bladder, producing by its heat pain in the external ear. The urine from the bladder turned black when not drawn off at the usual period, and deposited a sediment resembling black sand. Sometimes after this black sediment was precipitated, the fluid would be of a dingy yellow colour, at other times it would be as black as ink. The urine from the bladder was frequently of a very high colour before it turned black, but often turned black when it was as perfectly limpid as spring water, and on several occasions it has been noticed that when it was most limpid the largest quantity of black sediment was precipitated.

The discharges from the other outlets have, occasionally, all turned black: a more particular account of which may be found in the appendix. They differ, however, in one respect from the discharge from the bladder, since from the bladder it has never come off black, while it has from all the other outlets. This changing of colours in all the discharges from the different outlets, at the same time, is a most convincing proof of the identity of the fluids discharged.

Since the obstruction of the catamenia, there has been a discharge of blood supposed to be vicarious: it has generally come on every five or eight weeks, sometimes at the regular period. For the first two years there was a discharge of blood, occasionally from the stomach and lungs: from the right and left ear, oftener from the left: from the right and left breast, more frequently from the left; from the navel and from the nose. From the nose and the right ear, it has generally been mixed with urine, nearly three-fourths urine: from the left ear with about equal parts urine and blood; from the stomach and lungs, with the contents of the stomach and the secretions of the fauces; from the left breast and navel it has generally been unmixed with any other fluid. It was frequently fœtid—the colour always dark—it sometimes, though not generally, coagulates. When the urine was not drawn from the bladder for forty-eight hours, or longer, the quantity found in it was always less than when drawn off every twenty-four hours. Sometimes when the urine was not drawn off from the bladder for seventy-two hours, it would be found to contain only one or two ounces. From which I was induced to believe that the discharge from the bladder was almost entirely useless, and that the functions of the system might be performed with very little disturbance, without the excretory office of the bladder. Accordingly I omitted to draw off the urine for seven days, when three ounces only were found in the bladder, during which period.

the discharges from all the other outlets were increased, and her health did not appear to have in the least suffered. Both the quantity of fluid drank, and the quantity discharged from all the outlets during the twenty-four hours, was for several days ascertained and the difference found small. When the urine was drawn off from the bladder, two or three times a day, the quantity discharged from all the other outlets, was much decreased, from which I was induced to think that if it should be drawn off every two or three hours, it would be prevented from passing into the system, and being discharged from the other outlets. I therefore introduced an elastic gum catheter, and directed the urine to be drawn off every two hours, but the catheter in half an hour would be filled up with a thick glutinous substance. This was frequently repeated with no better success. Numerous instruments were invented, and when used were all equally unsuccessful. Pessaries of every description and other means to restore the parts to their natural situation, were used, and for a long time continued without any advantage. The quantity of urine discharged from all the outlets was so great, and so much beyond what has been thought possible, that I was apprehensive there might have been some deception—to remove every doubt, I and my friend Dr. WEBB, who at my request had occasionally attended her, remained with her four hours alternately, during twenty-four hours, and the quantity discharged during this time was as large as it had been for several days previous to, and after this period. There has never been any doubt that these fluids, which have been proved to be urine, were actually discharged from the ear and the other outlets, since the fact has been proved, day after day, by occular demonstration.

This great disturbance in the system continued to increase for nearly six months, and it was the opinion of all who saw the patient that she could not survive from day to day; after which period it gradually abated, and she is now, when the urine is freely discharged, so much relieved that she is able to walk about her room, and during the summer of 1824, frequently rode out. The discharges from the right ear, the right breast and navel, continue daily; but they are not so great nor so frequent as they were a year since; from the bladder the quantity is as usual; from the stomach, nose, eye, there has for some months been no discharge.

APPENDIX.

A Diary of the Discharges, the appearances and changes in them, together with the most prominent symptoms from the period of the first discharge, until those from all the other outlets were established.

	Bladder.	Right ear.	OBSERVATIONS.
1822	℥	℥	
Sept. 21	7	4	From the bladder on the 21st turned black, from the ear on the 21st, 22d, and 23d, not measured, but the quantity calculated from wet clothes.
22	16	5	
23	15	7	
24	11	10	Violent pain in the head relieved by a discharge from the ear—pulse 100—skin dry—tongue coated.
25	11	12	Pain increases with sensation of fulness—discharge guttatim—pulse 100
26	12	13	Pain increases—pulse 100.
27	11	15	Pain very violent—discharge more rapid.
28	12	14	Pain more violent—pulse 120.
29	13	13	Skin dry and hot.
30	12	15	Tongue much coated.
Oct. 1	10	14	Pain more violent—urine from ear very high coloured—discharged in a stream the size of a crow-quill.
2	12	14	Four ounces of urine discharged in five minutes—pain commenced about ten, and increased in violence until five o'clock, when the urine was discharged and head relieved—light extremely painful—can scarcely discern objects with right eye.
3	24	14	Urine by catheter twice—discharge commenced two hours later—in other respects no change.
4	12	13	
5		14	Catheter from unavoidable cause not used.
6	4	17	Catheter used at ten o'clock, after an interval of thirty-six hours, during which thirty-two ounces from ear—and only four ounces from bladder—discharge commenced six hours earlier—from ear and bladder high-coloured—from bladder after standing a few hours turned black.
7	30	15	Catheter used morning and evening—pain in head violent—other symptoms unchanged.
8			Introduced an elastic gum catheter, and directed urine to be drawn off every two or three hours—catheter filled with a thick viscid substance—urine not drawn off every thirty-six hours—complains of urinous taste—face and feet œdematous—urine from bladder turned black as ink, and deposited considerable sediment—pulse 120—symptoms unchanged.
9	16	67	
10			
11	6	24	Witnessed discharge of ten ounces in fifteen minutes.
12	18	53	Commenced guttatim and increased to the size of a crow quill—from the ear much hotter—higher coloured—urinous odour stronger than from bladder—pulse 120.
13	14	57	Nine ounces discharged in the presence of John Mackie, M. D. and Mr. Webb, student of medicine, in about

	Bladder.	Right ear.	OBSERVATIONS.
18[illegible].	℥	℥	half an hour—commenced oozing gradually, increasing to a stream the size of a crow-quill—produced pain from the heat, in which the thermometer rose to 104, and fell to 94 in that drawn from the bladder—from ear higher coloured and stronger urinous odour than from the bladder—less pain in the head.
Oct. 14	14	43	Discharge from ear, ten o'clock, A. M. usual colour, after standing a few hours turned as dark as pale ink—four P. M. a large discharge, usual colour—in about two hours turned a darker colour than that discharged in the morning—eight P. M. eight ounces discharged in presence of Messrs. Fales and Willard, students of medicine, darker than previous discharge, nearly as black as the black urine from bladder—from bladder turned black after standing a few hours and deposited a sediment resembling black sand—pain and heat in head most excruciating—eyes inflamed—pupils dilated—hearing of right ear impaired—pulse 140—skin dry—tongue coated—very thirsty—drinks freely.
15	13	40	From ear dark coloured—sediment resembling black sand is deposited—proportion of sediment one-third—other symptoms same as yesterday.
16	14	48	From ear muddy, but lighter than yesterday—from bladder turned black upon standing a few hours—pulse 140—in great distress.
17	16	64	From ear turbid, nearly as light as natural—pain in head—eyes a little relieved—from bladder natural colour
18	12	62	From ear straw colour—from bladder same; vomited six ounces of blood—dark coloured—soon coagulated.
19	20	65	By catheter twice—witnessed discharge of twelve ounces from ear in five minutes, previously to which the bladder was emptied.
20	35	44	By catheter three times—pain in head increased—eyes more painful—is wild and delirious—pulse 140—tongue coated and dry.
21	20	45	From bladder twice—symptoms unchanged.
22	17	64	By catheter twice.
23	16	70	By catheter twice—respiration laborious, other symptoms unchanged.
24	15	48	By catheter twice—respiration more laborious—head more painful—right side is numb previously to discharge from ear, by which relieved.
25	16	63	By catheter twice.
26	15	80	Pain in head relieved—other symptoms same
27	20	50	Symptoms relieved
28	18	80	
29	16	64	
30	14	56	
31	16	48	
Nov. 1	12	45	
2	16	40	

	Bladder.	Right ear.	OBSERVATIONS.
1822.	ʒ	ʒ	
Nov. 3	12	8	Convulsed throughout the day—spasms very violent.
4	6	12	Spasms violent—respiration laborious—palpitation of heart—symptoms indicating hydrothorax.
5	14	10	Spasms and other symptoms continue—pulse 140—skin hot and dry.
6	4	12	
7	16	8	Spasms continue—other symptoms relieved.
8	11	18	Spasms relieved.
9	14		Spasms very violent—pain excruciating—accompanied by sensation of fulness and weight—palpitation.
10	16		Spasms more violent—pain and sensation of fulness continue—respiration laborious—palpitation increases—eyes very painful—pulse 150.
11	15	12	Pain in head relieved.
12	14	10	Less pain in head—difficulty of respiration increases
13	14		Pain in head more violent, accompanied by delirium.
14	6		Pain in head excruciating—delirium increases.
15	12	16	Pain in head and delirium continue.
16	14	8	
17	15	10	Delirium relieved in some degree after discharge from ear—pain in head and other symptoms continue.
18	12	1	Delirium relieved—spasms increase.
19	14	8	
20	14	24	Spasms relieved—vomited four ounces of blood—dark colour.
21	9	15	From Nov. 21st to Dec. 7th, from unavoidable causes no history of case.
Dec. 7	8		Violent pain in head with sensation of fulness—and burning heat about right ear delirium—skin hot and dry—tongue much coated—pulse 140.
8	10		Pain in head increases—other symptoms continue.
9	20		
10	1		Pain in head excruciating—other symptoms continue
11	20	16	Pain in head and delirium in some degree relieved.
12	14		Delirium increases—pain in head more violent.
13	16		
14	10	12	Delirium continues—less pain in head.
15	12	8	
			From the 15th to 22d, no discharge from ear—from bladder rather more than usual quantity, not measured—delirium violent—pain in head most excruciating with sensation of fulness—burning heat about right ear—pulse 150—palpitation—skin dry—tongue coated.
22	12	8	Pain in head relieved after discharge from ear—other symptoms same.
23	14	8	
24	10	24	
25	7	8	
26	10		Pain in head more violent.
27	12	4	
			From 27th to 31st of December, no discharge from ear—increased quantity from bladder—increased delirium—violent pain in head—pulse 150.

	Bladder	Right ear.	OBSERVATIONS.
1823.	℥	℥	
Jan. 1	12	[illegible]	Delirium and pain in head relieved—urine from ear coloured with blood—on 3d, catheter not used—on 4th, urine from bladder black.
2	14	[illegible]	
3		52	
4	2	50	
5	3	26	Pain—delirium—palpitation—and all the symptoms entirely relieved—pulse 100.
6	8	66	
7	12	60	
8	12	47	
9	8	50	
10	12	6	Pain in head increases—spasm and swooning alternately.
11	8	12	Pain in head relieved—spasm and swooning not so frequent.
12	16	30	
13	12	39	
14	14	25	Urine discharged from left ear—about half an ounce saved—in odour and colour does not differ from discharge from right ear.
15	12	8	Pain in head more violent—swooning frequent—pulse 140.
16	10	8	Swooned ten times—sometimes remains insensible more than an hour.
17	8	12	Pulse 120—swooning not so frequent, nor so long insensible.
18	2	20	
19		12	
20	8	7	Urine from bladder turned black—swooning relieved.
21			Delirium from 21st to 25th so wild and raving as to suffer no one to come near her—on 24th no urine from ear, though the usual sensation of heat and fulness generally felt previously to the discharge—urine discharged from left eye guttatim about two hours in the morning.
22			
23			
24			
25	16	32	From ear when discharged, as black as pale ink—from bladder turned black after two hours—urine continues oozing from eye in morning—pain in head relieved—delirium continues—is very humorous—laughs and sings and talks incoherently—pulse 120.
26	16	32	More rational—swooning returns, succeeded by unusual numbness except in the fingers—pain changes from vertex and over the right eye to back of the head—urine continues weeping from eye—one ounce saved, does not differ from discharge from ear—pulse 120.
27	16	30	After swooning continued insensible for an hour—not the least sensation for several hours excepting about the windpipe—urine from eye ceased—pulse 121—pain in head continues.
28	[illegible]	28	Swooning not so frequent, succeeded by numbness of right side.
29	6	32	
30		7	Swooned at ten A. M. and remained insensible until next day at half past ten o'clock, A. M.
31	10	27	From ear turbid—from bladder light inky hue—both turned black—swooning relieved.
Feb 1	12	24	In evening from ear fourteen ounces in presence of Dr.

	Bladder.	Right ear.	Stomach.	OBSERVATIONS.
1823.	℥	℥	℥	Webb and myself, as black as ink—specimens were sent to Dr. Mitchell, New York, and Dr. Gorham, Boston.
Feb. 2	10	20		From ear colour of pale ink—from bladder turbid and turned black.
3		24		From ear turbid—though no urine from bladder, yet no distention—from left ear six ounces of bloody urine.
4		26		
5		30		
6	14			Violent pain in head—scalp tender and painful.
7	8	16		Head very painful—pulse 140
8	8	12		
9	16	3		
10	8	4		Pain in head relieved—pulse 100—urine from bladder not measured.
11		32		
12		28		
13		16		
14		17		
15		20		
16		17		
17		21		
18		8		
19		16		
20		18		
21		14		
22		20		
23		18		
24		24		
25		18		
26	12	4		Violent pain and sensation of fulness in head.
27	10	6		Insensible—arousing every three or four hours and immediately swooning—pulse 120.
28	8	11		
Mar. 1	12	15		Swooning relieved—head less painful—pulse 100.
2	12	18		
3	13	17		
4	12	20		
5	14	20		
6	12	20		
7	12	21		
8	14	18		
9		14		
10	8	17	16	Urine from stomach, without much nausea, unmixed with its contepts, colour light yellow—from ear same—pulse 100—not much pain.
11		16	18	
12	2		20	From bladder turned back—from stomach light yellow.
13		12	24	From ear deep—from stomach light yellow—discharge from stomach found by analysis to contain urea, and some of the salts found in urine.
14	18			From bladder turned black—pain and sensation of fulness in head.
15		16		Pain continues—urine high coloured
16	16			From bladder turned black

	Bladder.	Right ear.	Stomach.	OBSERVATIONS.
1823.	℥	℥	℥	
Mar. 17		6		Spasms commenced at four P. M. and continued until two o'clock A. M. in the muscles of the jaw, so violent that it was impossible to open the mouth
18	16	20		Spasms relieved—from bladder black.
19	20	12		
20	18	8	12	Spasms returned.
21	14	16	18	Spasms relieved—from stomach mixed with blood
22	12	12		
23	14	16		
24	12	18		
25	15	17		
26	12			Violent pain in head and delirium—pulse 120
27	10	6		Pain and delirium continue—pulse 130.
28		16		
29	16	18	12	From bladder turned black—from other outlets light yellow—pain and delirium relieved—pulse 120
30		16		
31	10	6	16	From bladder turned black.
Apr. 1	8		16	From stomach black as ink when thrown up.
2	10		8	Violent pain and sensation of fulness in head—delirium—pulse 140—sight of left eye impaired, right entirely destroyed.
3	6	8	16	From stomach and ear turbid, in few hours turned black—sensation of fulness in head—eyes very painful.
4	10	20		Pain in head in some degree relieved—eyes very painful—constant nausea accompanied discharge of urine from stomach.
5	12	16	4	
6	12	12		
7	10	16	18	
8	12	18		
9	20	30		
10	16	27		
11	8	16		
12	12	12	16	
13	7	18		
14			61	From stomach as black as ink when discharged—after which pain in head relieved—constant nausea
15	6	4		From bladder black.
16	10		40	From stomach black.
17	12	18		Pain in head relieved.
18	8	30	28	From stomach black—from bladder high coloured—turned black in a few hours.
19	20		18	From bladder dark yellow with a reddish cast, turned black after standing a few hours—from stomach light yellow and turned black.
20	16	12	30	From ear usual colour, turned black in six hours—from stomach black—from bladder light straw colour, turned black in four hours—in less pain than she has been since urine was first discharged from ear—pulse 100.
21	20	16	18	From stomach black—from ear and bladder light yellow—from bladder turned black—tension and

	Bladder.	Right ear.	Stomach.	Right breast.	OBSERVATIONS.
1823.	℥	℥	℥	℥	swelling in right breast—few drops of a light yellow fluid oozes out.
Apr. 22	24	10	40		Urine from all outlets regained its natural colour—that from stomach has a very fœtid smell and saline taste.
23	14	8	40		
24	22	12	64		From bladder straw colour—from ear pale black—from stomach came off in two portions—first twenty-eight ounces rather darker than natural—turned black after standing a few hours—the other thirty-six ounces of deep black—when discharged, dull pain in head.
25	16	8	61		From bladder deep orange—ear straw coloured—stomach a very deep black.
26	10	11	36		From bladder straw colour—ear little darker hue—stomach pale black—pain in head and delirium.
27	20	8			From bladder lighter than usual—ear deep orange, approaching to red—delirium continues—swooning—and spasms—pain and tension of right breast—few drops ooze from nipple—pulse 120—incubus.
28	18	15	34		From bladder light straw colour—ear dingy yellow—stomach natural colour—while present she put a thick cloth to her breast, in a few minutes was completely soaked with water, which had the smell of urine—when dropped upon a heated shovel threw off the pungent fumes so peculiar to this secretion, indicating the presence of urea.
29	14	16	46	1	From bladder light yellow—ear straw colour—stomach dirty yellow—breast light yellow.
30	16	16	44	7	From bladder and ear straw colour—stomach dirty yellow—breast partly white, and partly of yellowish cast—patient is rational, and complaining of nothing except a disagreeable sickness occasioned by the rank smell of urine from breast.
May 1	16	17	28	12	From bladder and ear straw colour—stomach dingy yellow—discharged considerable from stomach, and complains of gnawing pain.
2	11	16	50	8	From bladder light yellow—ear and stomach dingy yellow—breast three potions—1st. Reddish—2d. Limpid—3d. Considerably bloody, about the colour of currant wine.
3	8	9	32	18	From bladder light yellow—ear, stomach, and breast straw colour.
4	17	16	52	8	From bladder light yellow—rest dark colour
5	18	17	57	12	
6	16	16	44	12	
7	17		40	13	
8	17	14	40	8	

	Bladder.	Right ear.	Stomach.	Right Breast.	Navel.	OBSERVATIONS.
1823. May 9	℥ 17	℥ [illegible]	℥ 42	℥ 13	℥	From bladder straw colour—stomach black—breast dark yellow—and turned black.
10						From unavoidable cause catheter not used
11						
12						From bladder deep yellow, and turned black—other outlets deep yellow.
13	6	18	28	6		From bladder light colour—turned black—from other outlets black—all deposited black sediment—feet and legs œdematous—urine begins to be discharged from navel.
14	30	13	42	12	10	From bladder dingy yellow—other outlets black—a small discharge from left ear.
15	14	15	76	10	6	From bladder light coloured—ear, stomach and breast black—navel dirty white—while urine is passing the navel she suffers a painful sensation like that which would be produced by a dagger being thrust into the body.
16	18	13	54	4	24	From bladder lemon yellow—ear and stomach dirty yellow—one portion from navel same as yesterday—others light yellow.
17	16	12		13	30	The whole lemon or yellow colour
18	20	16			32	Colour same as yesterday.
19	5	11	20	16	22	From ear, stomach, and navel, like dirty water—breast black—bladder light yellow—sixteen ounces discharged from left ear.
20	24	16		7	27	From bladder *nearly limpid without sediment*—it soon turned black, and deposited a thick sediment—ear and breast light colour—navel high coloured and turned black—patient complains of tension and swelling of left breast—this affection differs from the right breast, being attended with a sensation of coldness—in the right is a fluctuation perceived by striking with the fingers—the left is hard and firm—constriction of chest and a saltish taste, which generally precedes the vicarious discharge from the lungs.
21	18	10		13	16	Colour of all discharges light yellow—six ounces of thick dark coloured blood discharged from left breast in morning—pain and sensation of coldness and tension relieved—in evening, in presence of Dr. Webb, discharged a considerable quantity, which in colour resembled the expressed juice of the phytolacca de

	Bladder.	Right ear.	Stomach.	Right breast.	Navel.	OBSERVATIONS.
1823.	℥	℥	℥	℥	℥	
						candra, and in smell sulphuretted hydrogen given off by putrid eggs.
May 22	20			9	46	Eighteen ounces discharged from left ear, colour deep yellow—six ounces from left breast tinged with blood.
23	20	17	12	14	60	The left breast continues painful—small discharge of reddish cast—from navel very high colour—from bladder limpid—others light yellow—the greater part discharged in morning previously to drinking.
24						No history of case.
25						
26	12	12	11	8	8	From stomach dark colour.
27		12		8		
28	1	12				From bladder black—ear dark yellow.
29	2			8		Violent pain in head—sensation of swooning—pulse 150—eyes painful.
30	2	12				Symptoms continue.
31	10	16				
June 1	12	16		12		Less pain in head.
2	12	30		8		
3	14	32		6	8	Pain in head and swooning relieved.
4	10	34		6		
5	12	24		6		
6	14	20		8		
7	12	18		7		
8	10	24		9		Eight ounces of urine from left ear mixed with blood.
9	6	20				
10		16				
11	4	18		8		From bladder high coloured—turned black—ear and breast yellow.
12	8	12		8		From the 12th to 25th average quantity from ear twenty ounces—bladder eight ounces—breast six ounces.
						From 25th of June to 2d of July, no discharge from either outlet, though catheter used every day—violent pain in head with sensation of fulness—palpitation—delirium—pulse 150—tongue coated—restless—trembling—swooning.
						From 2d to 20th of July, average quantity from ear eighteen ounces—breast six ounces—bladder five ounces—occasionally discharge from navel.
July 21	4	16		8		Sixteen ounces discharged from left ear—colour as from right.
22	8	28				From right ear mixed with blood—twenty eight ounces from left ear, light yellow—turned black in three hours.
23	4	18		8	4	From right ear tinged with blood—

	Bladder.	Right ear.	Stomach.	Right breast.	Navel.	Nose.	OBSERVATIONS
1823.	℥	℥	℥	℥	℥	℥	
							fourteen ounces from left, light yellow.
July 24	14	16		8	12		From right ea. mixed with blood—twelve ounces from left, yellow
25	16	20		8	8		
26	8	16		7			
27		18		8	16		
28	7	48		12	8		From bladder usual colour—urine black.
29	8						Violent spasms.
30		20			16	6	Discharge of urine from nose—spasms less violent.
31	12	32		8	16	10	From bladder black
Aug. 1	12	24		8	10	12	
2	16	20		8	12	6	
3	16	16		8		16	
4		12		8		16	
5	12	16	15	8		16	From bladder black
6	16	18	20	8		17	
7		16	22	16		12	
8	4	14	18	16	10	14	From bladder black
9		28	17	16	12	13	

The following average is calculated from diaries kept by Messrs Charles Goodwin and Joseph W. Fearing, (Medical students.)

Average quantity from August, 1823, to June, 1824—from bladder, twelve ounces—from right ear, eighteen ounces—from right breast, fifteen ounces—from navel, twenty ounces—from stomach, nose, eye, left ear, and left breast the discharges have been so irregular that an average has not been calculated

The following is an extract from the diary kept during the summer of 1824 by Mr. E. W. Greene, student of medicine, which is annexed to show the quantity daily discharged from the left eye.

	Bladder.	Right ear.	Stomach.	Breast.	Navel.	Nose.	Left eye.	OBSERVATIONS.
1824.	℥	℥	℥	℥	℥	℥	℥	
July 20	16	15		12	13	2	2	Health much improved, and when discharges are regular, free from pain.
21	10	32		36	17	1	1½	
22	16	30		16	10			
23	14	35		20	36	3	3	
24	10	32		8	16	14	13	
25	12	30		16	30	16	6	
26	20	46		16	38	16	8	
27	16	52		16	48	17	6	
28	12	40		17	37	16	8	
29	16	47		5	20	16	8	
30	10	44		16	44	16	[illegible]	

ART. IV. *Thoughts on the Pathology and Treatment of Icterus or Jaundice.* By N. CHAPMAN, M. D.

THE origin of the technical title of this disease is somewhat curious. It comes from the Greek Ικτερος, the golden thrush, the colour of the skin in the disease being supposed to resemble the plumage of that bird, and we are told by PLINY, that if the patient looks at the thrush, he is immediately relieved and the bird dies. By the Romans it was denominated *morbus regius*, of which CELSUS gives this facetious explanation. Its cure, says he, is to be attempted by exertions of every kind, "lusu, joco, ludis, lacivia, per quæ mens exhilaretur: ob quæ regius morbus dictus videtur." But Pliny tells us it was so called, because those who frequent the courts of kings are most liable to it, which is probable from the voluptuous habits of such society, and which is not wholly irreconcileable with the explanation of Celsus.

The disease approaches in different ways, though as it usually occurs, it is introduced with much languor, inactivity, and depression of spirits, attended by anorexia, head-ache, præcordial uneasiness, considerable disorder of stomach, by flatulence and sour eructations, or nausea, or vomiting, and sometimes cramps, or cholicky pains. These affections so frequently prove the precursors of the disease, that from their existence, its invasion may with some certainty be predicted. The bowels are mostly costive, and when stools are procured they are hard, and of an ash or white colour, indicating the absence of bile. Yet in many instances, there is a profusion of biliary secretion with laxative evacuations. The urine is commonly scanty, and of a deep yellow, or brown, or saffron colour, staining linen dipt in it. There is also a very unpleasant taste of the mouth, with thirst, though the tongue is rarely changed.

As the case advances, the skin, which from the commencement, is dry, and sometimes distressingly itchy, becomes with the adnata variously tinged, the colour appearing first in the eyes, cheeks, neck, and chest, from which points it is progressively spread over the whole superfices of the body. But it is not uniformly diffused. I have seen it restricted to the eyes, and very often embracing only the face. As an anomaly, it is sometimes confined to a longitudinal section of the body. BEHRENS records a case attended by hemiplegia, where the palsied side was so exclusively icterose, that only one-half of the nose was coloured. Examples, nearly similar, are to be met with in the writings of VALSALVA, ETMULLER, DUPUI, &c. It is most commonly of some modification of yellow, from a pale lemon to the deepest orange or saffron hue. Cases, however, are occasionally presented, in which it is green, or of a darker or lurid colour, called green or black jaundice.

Not much is to be met with in the treatises on the disease, relating to this variety; and indeed, the only precise account of it which I have seen, is in a short essay by the late Dr. Baillie, so eminently distinguished by the accuracy of his observations. The substance of what he has communicated on the subject, I shall notice under the several heads of my inquiry. Excepting the difference in the colour of the skin, the symptoms do not essentially vary from those I have detailed. It is said to occur more frequently in the middle and advanced periods of life than at an earlier age, though occasionally it appears in young persons, and oftener in men than women. The progress of the case is also slower, continuing a year or two, or in some instances for many years, and though exempt from violent affections, it steadily pursues its course, till the powers of the constitution are exhausted.

It has happened, however, in some instances, that the three colours have existed in different parts of the same person. Lanzoni had a patient whose face was green to the throat, while the right side of the body was black, and the left yellow. The green and black gradually became yellow, the black again resumed its colour, and finally the whole was yellow. But to return to the history of the ordinary form of the disease.

Tenderness of the epigastrium and right hypochondrium is now complained of, and fever more or less intense, ensues—the pulse being full and strong, and sometimes hobbling and even intermittent. Numerous are the cases, however, in which there is little or no fever, or disturbance of the circulation. The head is not unfrequently affected by pain or fulness, and the disorder of vision incident to the disease is proverbial. My allusion is more particularly to all objects being seen of a lurid or yellowish hue, and which was early observed, as appears from the following lines of Lucretius.

> "Lurida præterea fiunt, quæquomque tuentur
> Arquatei, quia luroris de corpore eorum
> Semina multa fluunt, simulacris obvia rerum,
> Multaque sunt oculis in eorum denique mixta,
> Quæ contage sua palloribus omnia pingunt."

And Shakspeare, no less the poet of nature, declares—

> ————————" To the jaundiced eye
> All things seem yellow."

Nor is medical authority wanting to the same effect, as that of Galen, Sydenham, Boerhaave, Van Swieten, Hoffman, &c. who assert, that they have occasionally seen it. But long and generally as the notion has been entertained, it is doubted by some, whether there be any foundation for it, and certainly it is by no means a common occurrence. The fact was, I believe, first denied by Mercurialis, afterwards by Haller—and by Heberden we are told, that of all his icteric patients, he had two only who confessed its existence, and their testimony he distrusted. My own experience is decidedly against it. Whenever it takes place, the humours of the eye must be tinged, and such is a very rare event. But in other respects I have seen the vision much affected by dimness, or becoming double or inverted.

Calculi passing through the ducts of the liver, are productive of spasmodic pain in various degrees of intensity, and which is often attended by vomiting so violent that nothing can be retained. The pain, however, is mostly circumscribed to the lower part of the stomach and duodenum, shooting through to the back, though such is sometimes its vehemence, that there is an inability to lie down, and the sufferer, in a sitting posture, is actually drawn double. After a while, relief is afforded, as is usually believed, by the escape of the calculus, which continues for days, or weeks, or months, or even for years—or in short till a second one gets into the same position. Even admitting this explanation as applicable to some cases with such symptoms, it surely cannot be universally received. Many are the instances in which I have known the pain removed by remedies which could have had no tendency to promote the expulsion of a calculus, and under circumstances precluding absolutely the suspicion of its existence. Most probably here it was induced by spasm of the duct or stomach, or duodenum, independently of any calculous irritation, and so analogous are the two affections, that I know hardly any criteria by which they can be discriminated. Coe, Heberden, and other writers, however, deny that icterus ever arises from spasm.

What I have hitherto said, relates to the more violent and inveterate shapes of the disease. Every practitioner, however, of much experience, has seen it, and with the deepest tinge of the skin, productive of no constitutional disturbance—the appetite, the pulse, the tongue, the secretory and other discharges, continuing healthy, and so little is the individual affected, that he goes about pursuing his ordinary occupations without detriment or inconvenience.

The career of the disease is very different: sometimes speedily submitting to slight remedies, or the spontaneous efforts of nature.

Not a few cases of it, however, prove very indomitable, running on for a length of time, and ending in hydropic effusions, or extreme emaciation with hectic fever, or some cerebral affection, as coma, apoplexy, palsy, or convulsions.

Concerning the remote causes of jaundice, these are many and diversified, or such, at least, have been assigned. Commonly, it is ascribed to the entrance of bile into the circulation, owing to an obstruction of the ducts of the liver, from inspissated bile, or calculi, or spasmodic stricture, or thickening of the lining tissue of the tubes, or heavy hepatic congestions, or by infarctions of the duodenum, or enlarged pancreas, or by pregnancy.

Torpor or paralysis of the ducts, has also been alleged to be a cause, as well as the choaking up of the choledochus by worms. Examples are recorded by Beuth, Lieutaud, and Ludwig, of lumbrici being found either in the ducts or gall bladder of icteric patients, and a preparation of the liver is in the museum of this university,* illustrative of the same fact, taken from an individual who sunk under protracted sufferings, from hepatitis with jaundice. But it is very often brought on by other circumstances. Certain poisons will induce it according to Galen, who saw "a green colour to take place all over the body of one of the emperor's slaves, from the bite of a viper," which has been subsequently confirmed as to the influence of the virus of that reptile by Fontana—and, I have understood the icteric aspect is a very common effect from the bite of the rattlesnake and some other venomous serpents of this country. Lanzoni tells us, that "he observed an icterus occasioned by the bite of a cat, which lasted forty days," and Van Swieten another by that of a dog. Topical yellowness is a pretty uniform effect of the sting of the bee, wasp, hornet, &c. &c. In two instances of poisoning from arsenic which came under my notice, the skin as well as the serous exhalations in the cavities of the body, was deeply tinged with the hue.

Not unfrequently too, the disease proceeds from mental emotions. Either vehement rage or terror has excited it, and it has resulted from petulance, grief, anxiety, and other irritating or depressing moral influences, conformably to the experience of Morgagni, Valsalva, [illegible], Tode, Monro, Drummond, &c. Excessive grief, from the loss of children, caused it in two ladies whom I attended.

Nothing escaped the comprehensive observation of Shakspeare. The following is the reply of the gay Gratiano to the gloomy moralizings of Antonio in the Merchant of Venice.

---

* University of Pennsylvania

> "Let me play the fool,
> With mirth and laughter let old wrinkles come;
> And let *my liver* rather heat with wine,
> Than my heart cool with mortifying groans.
> Why should a man, whose blood is warm within,
> Sit like his grandsire cut in alabaster?
> Sleeps when he wakes? and creeps into *the jaundice*
> By being *peevish*."——

In the tent scene of Troilus and Cressida, Agamemnon is thus made to address his council of lieutenants, who had become despondent at the protraction of the seige of Troy.

> "Princes
> What *grief* hath set the *jaundice* on your cheeks?
> The ample proposition, that hope makes
> In all designs begun on earth below,
> Fails in the promised largeness: checks and disasters
> Grow in the veins of actions highest record;
> As knots, by the conflux of meeting sap
> Infect the sound pine, and divert his grain
> Tortive and errant from his course of growth."

Concussion from the explosion of a bomb in a room, I have learned from an authentic source, once excited it almost instantaneously. Twice I have witnessed it brought on by ingesta, without spasm, or other gastric uneasiness, except nausea and oppression.

Those who are most subject to the disease are, the sedentary, the indolent, and studious, or whose occupations require a curvature of the body, or the dissipated, and particularly the intemperate and debauched. The hysterical and hypochondriacal are exposed to it, and all such as are harassed by the cares, disappointments, or vexations of life. Criminals are said by Haller to be peculiarly liable to it, whether from confinement or mental inquietude, does not clearly appear.

No age or sex escapes the disease. It is incident to infancy, and every subsequent stage of existence. Generally, however, it is met with in those somewhat advanced in life, and more perhaps in males than females, though the difference seems not so great as generally supposed. "Men and women," says Heberden, "are equally liable to this malady: in a continued succession of a hundred patients, I counted fifty-two males, and forty-eight females."

The phenomena of jaundice are so peculiar, that it can hardly be mistaken for any other disease. It is stated by Heberden, "that the most distinguishing signs are a yellowness of the eyes, skin, and urine, and a want of this colour in the stools," which symptoms are selected by CULLEN in his definition of it.

Nor need much be said of the prognosis. Most cases of a recent and functional nature are sufficiently medicable, and especially so as respects those of infancy. Being, however, of long standing, and complicated with disorganizations of the liver or other important structures, or in the old and infirm in any respect, they prove generally incurable, or of very slow or doubtful amendment.

Contrary to common opinion, it is asserted by Heberden, that attacks from gall-stones rarely are fatal. Nor according to BURSERIUS, "is there much reason to apprehend danger when occasioned by hysteria, hypochondriasis, or pregnancy, as it quickly ceases after delivery," in which latter remark I cannot concur, having witnessed in several instances very opposite results. It has already been mentioned on the authority of Baillie, that where the tinge is lurid or green, though the case may be protracted, recoveries seldom take place. Melæna, or the purging or vomiting of dark grumous blood is usually a mortal occurrence, and emaciation with hectic fever, or dropsical effusion, or any heavy cerebral affection, as profound coma, apoplexy, palsy, or convulsions, imports either immediate or remote danger.

We may generally prognosticate favourably where, with improvement in the appearance of the surface, there is a subsidence of gastric disorder, more natural fæces, and heavy deposits in the urine. Certain evacuations, as hæmorrhage from the nose or rectum, or by perspiration, or from the kidneys, or bowels, are reputed to be critical, promptly resolving the disease in some cases.

The appearances on dissection, from the history of the remote causes of the disease which has been given, must of course vary much. The liver in certain cases exhibits great diversity of structural derangement, while in other instances it is slightly or not at all affected. In the green jaundice, Baillie affirms, "that the liver is often enlarged, hard, and tuberculated throughout its whole substance, though this morbid change of structure is sometimes confined to a single part of it, and occasionally, no induration whatever is discoverable in that viscus." Gall-stones are occasionally found in its ducts as well as its bladder, varying as to number, figure, and size. "Frequently, however," says Burserius, "in icteric bodies, no morbid condition of the liver, no taint of the ductus biliferi, and no biliary calculi are observable." This statement is substantially confirmed by Heberden. The stomach and duodenum very often betray marks of phlogosis or its consequences, by thickening or other changes of tissue. For the most part, the qualities of the bile, cystic and hepatic, are altered in colour and consistency. It has, to use the language of Good, "been met with acid, acrid, saltish, insipid, whitish, black, green, eruginous, and versi coloured—as dense and dark as elder rob, as tenacious and limpid as the white of eggs, and as crowded and granular as the spawn of frogs."

In very violent and lingering attacks, every part of the interior of the body is tinged of the same hue as the skin. The pericardium, the heart, the abdominal viscera, the blood-vessels, the meninges and substance of the brain, the fat, the cartilages, and even the bones, have been observed in this state. Excepting the milk, all the secreted fluids, as the perspiration, the saliva, the sputum, the semen, the serous exhalations into the cavities, &c. are also found discoloured. These statements are made on the authority of Bartholine, Lieutaud, Morgagni, Van Swieten, Storke, Haller, Burserius, Heberden, Powell, &c.

What is the proximate cause or true pathology of jaundice seems not determined. As before intimated, it has generally been ascribed to the absorption, more especially of cystic bile into the circulation, from some obstruction to its passage into the duodenum. That it does not depend on this cause exclusively, is shown by a case reported by Richter, where the disease occurred in an individual, who, after death, was found destitute of a gall-bladder—and scarcely less conclusive is the result of an experiment by Portal, in which he tied the cystic duct of an animal without producing jaundice. I have long entertained doubts, whether it could be assigned, under any circumstances, to either species of bile. It appears to me, 1. That, were it owing to this cause, the disease might at any time occur, or whenever there is bile exposed to the action of the lacteals or other absorbents, as when accumulated in the stomach and small intestines: 2. That though the stools usually indicate a want of bile, this is not uniformly so: 3. That in many instances of the disease, no obstruction existed on a *post mortem* examination in the ducts of the liver, or any other derangement to account for it: 4. That the peculiar bitter taste of bile is not discernable in any of the fluids: 5. That the disease sometimes comes on too suddenly, as in the instance of the concussion of a bomb, or from violent paroxysms of rage, to suppose it to be owing to absorption.

To these arguments it may be added, that in this disease there is very rarely any genuine bile formed. The fluid, discoverable on dissection, as well hepatic as cystic, has scarcely any such properties as to taste, colour, or consistency. It is a peculiar one, the result of a morbid secretory action, caused by the condition in which the liver is placed.

Even admitting that absorption takes place, as is contended for. the tinge imparted to the skin, should then be of a correspondent colour, and not of the various shades of yellow which happens. But such a process no more goes on in this case than in retention of urine. The bile must be taken up from the pori biliarii or hepatic or cystic ducts, or gall-bladder, which is contrary to all analogy and fact. Does it ever happen in relation to the urine under such circumstances? Conceding that genuine urine has been discharged from the stomach and other remote parts of the body, of which some instances are reported, they supply no evidence of its absorption. These parts have assumed a vicarious office as we have frequent occasion to witness with regard to menstruation.

Embarrassed by these difficulties, some of the advocates of the hypothesis, which ascribes jaundice to bile, have so far changed their ground, as to allege the greater probability of its being introduced into the blood by *regurgitation*, or lacteal absorption. As to the first of these suppositions, its absurdity is so obvious, that it has received a very slender support, and in relation to the second, experience refutes it. By Powell, a recent and authoritative writer on the subject, we are informed that the *disease "never accompanies those cases of immense secretion of bile,* which are called cholera, at least I have never seen it in very violent ones, nor do I know any author who mentions it, even as an accidental symptom, and if it had happened, it could not possibly have been overlooked. Bianchi," continues he, "gives a case where this circumstance was more narrowly investigated, for he examined the lacteals of a man who had died of cholera, and found that their contents were not in the least tinged by bile." Let me repeat that there is no absorption of bile. The secretory function of the liver in jaundice, so far as concerns the healthy exercise of it is suspended, as in bilious or malignant fever, and the earliest manifestation of recovery, is the restoration of its office.

Considered as no longer tenable, these views are now abandoned by the best pathologists, and a very early notion is revived, which supposes, that the phenomenon is owing to the liver being altered in its structure or functions, and the materials of bile in the blood consequently not being separated. But can there be a looser speculation, or a greater absurdity? The elements of bile, are not bile itself, which is a peculiar fluid, the product only of the, secretory action of the liver, and can never exist till the blood is subjected to this process.

Denying, therefore, altogether these several hypotheses, I am led to believe, that in some undefined irritation of the chylopoietic viscera, arising from any of the remote causes formerly enumerated, with which the capillaries sympathising, the serum of those vessels undergoes a morbid change, as in yellow fever, and in certain cases of poisoning, &c. The same discolouration which occurs in a part, from a bruise, happens in all these instances, and is equally referrible to the torpor or impaired vitality of the extreme vessels. The capillaries being in this languid state, no matter how it may be induced, are disposed to form a fluid of some shade of yellow or its combinations, thus tinting the surface, &c. We meet with it in the cachexies, &c. It sometimes happens in the diseases of the spleen—I have seen it as an attendant on gastric or enteritic epilepsy, and very conspicuously in the chlorotic affections, where the complexion exhibits all the gradations of hues from the icterose to the green and livid. As strongly is it illustrated in the cutaneous efflorescences, especially when of a weak or typhoid character. Cases of rubeola, scarlatina, and erysipelas have repeatedly come under my care, followed by this sallowness. But the most striking proof is offered in some of the early eruptions of infancy. These, at first florid, on the weakening of the vessels, gradually assume the sallow hue. The act of death is often productive of the same effect. It is indeed a very common occurrence, however pallid before, for the corpse to become all over yellow. But it may be asked, does not jaundice also tinge the internal structure of the body? Be it admitted, and what can be deduced from it? Does it not often occur, where it cannot possibly be imputed to bile? Moreover, are not the capillaries distributed through every part, the most minute and obscure recesses of the animal machine, and as the cutaneous, so are the rest affected?

Considerations, such as I have presented, seem to demonstrate that jaundice is not owing to the absorption of bile, and we are left, as I conceive, to seek for the cause of it, in that state of the extreme vessels which has been described. The parent irritation of the chylopoietic viscera, which is very commonly, I suspect, in the mucous tissue of the stomach or duodenum, and not the liver, is extended to the capillaries, and in consequence of the condition thus induced, changes are wrought in the serous fluid circulating through them, characteristic of the icteric affections. Complexional hues being bestowed in this manner in various other cases, why should it not also happen in jaundice? That the closest similarity exists in the whole of these affections is undeniable, and it remains for those who are opposed to the views I have endeavoured to sustain, to point out the peculiar and distinctive character of jaundice.

It is sufficiently apparent, from the preceding account of jaundice, that the prospect of effecting a cure, cannot be the same in the different cases—and, to be appropriate, our remedies must be varied, according to circumstances. The remote and not the proximate cause of it, we are called upon to remove in many instances, and from the diversity of circumstances by which it is induced, there can be no uniform or consistent plan of management adopted. Nor is this the only difficulty to be encountered. Cases dependent on the most opposite conditions, and exacting quite a different curative process, are so obscurely designated, as to elude all the powers of discrimination. It is on these accounts, that our practice is nearly always tentative, and I fear, too often degenerates even into absolute empiricism.

In the ordinary forms of the disease, where little fever or local pain exists; we commence the treatment with evacuations of the primæ viæ, and emetics are especially useful.

Cathartics are also important, so much so, indeed, as to constitute a very essential, and, not unfrequently, the only remedies. Beginning with active purging by calomel alone, or with its ordinary adjuncts, the bowels are subsequently to be kept in a soluble state, by magnesia, the neutral salts, or other gentle laxatives.

These two classes of remedies operate probably on nearly the same principle, removing causes of gastric or intestinal irritation, and by exciting the liver sympathetically, through the strong impression made on the alimentary canal. In proof of the beneficial tendency of purging in particular, it may be repeated that jaundice is often cured by the spontaneous occurrence of diarrhœa.

The case I have presented, one of the simplest of the disease, is comparatively easy of cure. But it wears a more complicated aspect, and demands a different course of proceeding. Coming on with fever, or a strong, full pulse, and topical uneasiness, venesection must be practised, and to some extent, to remove such a condition of the system. Greatly may it be aided by topical bleeding, which is too much neglected. The stomach, the duodenum, and the liver, are here all involved in irritation, congestion, or phlogosis. By a detraction of a few ounces of blood from the epigastric or right hypochondriac region, according to the indication, I have seen signal advantage to result, and, where the means of local bleeding cannot be had, blistering may be substituted. Not less are these measures required in those distractions of the head, which sometimes prevail for days, and relief not being afforded, prove one of the most afflictive attendants on the case.

What, however, calls for the most vigorous proceedings, is a relentless obstruction of the biliary ducts, from a calculus or the spasm of these, or of the stomach, &c. inducing the intense suffering formerly noticed.

The indication here is two-fold, to induce relaxation of the duct, &c. so as to overcome the impediment, and to obviate inflammation, which would follow were obstruction or the spasm to continue. To meet these views, we resort to copious venesection, sometimes even *ad deliquum*—to the warm bath—topical fomentations, and to bleeding by cups or leeches—to vesication—to anodyne enemata and emetics. With regard to the latter, their use must necessarily be precarious and doubtful, to the expulsion of calculi.

These are found of various sizes, from that of a small granule to a hen's egg. It is obvious, that when the stone is so great as not to pass through the duct, vomiting must be mischievous—and it is utterly impossible to ascertain its dimensions. All that we can do is to be governed by the symptoms. Much pain, fever, and general excitement existing, emetics are to be avoided.

Being relieved of this urgent affection, the case next calls for the means which are supposed by many to have the power of dissolving or otherwise destroying biliary concretions. But I believe they operate on no such principle, and it is not easy to explain their efficacy. Be their modus operandi as it may, experience has taught that some of them are useful. Ether and the spirit of turpentine mixed, had once a high reputation under such circumstances, though now little, or not at all employed. Ever having done good, I suspect it was by their carminative or antispasmodic powers, and not from any efficacy as a solvent or deobstruent. Combinations of the alkalies, in the mild as well as the caustic state, have also long claimed, and perhaps justly, much attention. They are variously administered, though the ordinary shape is that of *Castile soap*. Equal portions of it, rhubarb and aloes, with or without calomel, I have often known to be effectual. The common potash mixture, prepared agreeably to the annexed formula,[*] is likewise serviceable in a table-spoonful dose, occasionally. But incomparably the best preparation which I have ever tried, is the following popular nostrum.[†]

Many articles, which must act in a very different mode from these alkaline remedies are entitled to confidence. The acids, mineral as well as vegetable are among these, and especially the nitric, which is by some highly estimated. Cider or even lemonade I have known to be serviceable.

---

[*] ℞. Potassæ Carbonas—Gum Arab. āā ʒj.—Tinct Theb. gtt. xxx.—O. Menth. gtt. x.—Aq. Font ℥iv.

[†] ℞. Carbonas Potassæ; ℥j.—Sapon. Hispan.—Gum Arab. āā ℥ss.—Alcohol dilut. ℔.—To be frequently stirred, so that the ingredients may be well mixed and dissolved, which will require several days. The dose is half a wine-glassful, to be taken for three successive mornings fasting, and if not relieved, omit it for one day, and then recur to the same mode.

As a general rule, however, the treatment consists principally in keeping up a pretty constant impression on the primæ viæ by purgatives, with which view the pill or the syrup of the butter-nut is well entitled to notice.[*]

Next, where the case does not give way, an alterative course of mercury should be resorted to, and this failing, the nitro-muriatic acid, exhibited internally, as well as applied externally by frictions, or as a bath, may be tried. It is at this juncture, that the taraxacum, the dandelion of our fields, has been much trusted to by some practitioners.

Directly the reverse, however, of this plan of management, is recommended, consisting alone in the narcotics, as cicuta, hyosciamus, belladonna, the prussic acid, &c. To alleviate spasmodic pain, or to quiet irritation, I give opiates, and for no other purpose resort to narcotics, believing that these are the only purposes which they are capable of fulfilling at this stage of the disease.

Of the icteric cases, dependent on disorganized conditions of the liver, I shall here say nothing. Being merely effects of another disease, the cure can only be accomplished by its removal, to point out the treatment of which, is alien to my present design. Little more, therefore, remains to suggest as to the management of icterus, than that advantage is sometimes derived from the use of those mineral waters, which are found appropriate to the other hepatic derangements. Even a journey to the Springs, and particularly when taken on horseback, is occasionally useful, not probably, as is generally imagined, so much by dislodging calculi, as invigorating the primæ viæ, or the secretory action of the liver. It is on the same principle that electricity and galvanism have been applied to the cure of these cases.

Too much, however, is usually done in the treatment of this disease. As long as the sallowness of the surface endures, it is thought by many practitioners, and always by the patient, that there is occasion for the continuance of active remedies. But this colour of the skin, merely an effect over which we have little control, when unconnected with constitutional disturbance may be disregarded, or left to the natural or recuperative powers to remove. From an opposite course, harassing the system, and especially the primæ viæ by such measures, I have certainly seen a very serious derangement of health induced, and in some instances permanently entailed.

---

[*] The Juglans Cathartica of Michaux

Convalescence is more effectually promoted by a duly regulated regimen, very similar to that in dyspepsia, and should the stomach suffer, by the moderate use of the vegetable bitters, or mineral tonics and particularly the mildest of the martial preparations, so united with rhubarb as to obviate costiveness. An oppression in the region of the duodenum, is not unfrequently felt an hour or more after a meal, owing perhaps to an accumulation of food from torpor of that intestine, to relieve which nothing answers so well as a couple of ounces of the infusion of senna and gentian, in the proportion of half an ounce of the former, to a drachm of the latter, in a pint of water.

As to the more inveterate forms of the disease, the green or black jaundice, it is confessed by Baillie, the highest authority on the subject, and which seems to correspond with common experience, that they are nearly intractable, no permanent, salutary impression being made on them by any ascertained means.

Mercury has very little influence. "The kind of induration," he tells us, "which attends the disease, is not affected by it in the same manner as those indurations of the liver usually are which sometimes accompany yellow jaundice. Mercury, however, will sometimes alleviate, for a time the uncomfortable feelings of the patient, and induce him to think that he is getting better, without inducing any substantial benefit. The daily use of neutral salts in small doses, has appeared occasionally to have been of some advantage; but of all the cases of green jaundice which have fallen under my notice, I recollect two only which recovered."

An icterose predisposition being established, and which is generally laid by an attack of any severity, speedy relapses, or more remote recurrences of the disease, are very apt to take place. To guard against these is an important consideration, as the constitution thus repeatedly assailed, becomes disordered, and ultimately a train of morbid consequences arises of the most fatal import. It will be well studiously to avoid all the exciting causes, and which are chiefly embraced in want of attention to the bowels, inappropriate clothing, indiscretions in diet, exposure to the fluctuations of weather, inordinate exercises, or the reverse, habits of indolence, the indulgence of intemperate passions, or the cherishing of anxieties, or cankering cares. This is a prophylactic precept, which should always be inculcated, and strictly observed.

ART. V. *Observations on the Medical Topography and Endemic Fever of Montgomery County, Alabama.* By CHARLES S. LUCAS, M. D. of Alabama.

THE county of Montgomery lies principally on the east side of the Alabama river, and includes within its northern and eastern boundaries a small portion of country between the Coosa and Talipoosa, which, by their confluence, form the Alabama river. This great stream originates in the mountains of the northern part of the state, and after a devious course, generally tending to the south-west, of more than a thousand miles, terminates in Mobile Bay, the great commercial outlet of the state.

The general aspect of the country is flat or level, but may naturally be considered in three portions. The first is that part bordering the river, which, from its lowness and fertility, is most valuable, and which is also most liable to disease, on account of being frequently inundated. These lands are peculiarly adapted to the cultivation of cotton and corn, the staples of the country, and when uncultivated, are clothed with most luxuriant growths of spontaneous vegetation.

The fertility of the soil is well shown in the stately and majestic appearance of the forest trees, which attain a size far exceeding that produced in other situations. For several miles from the river the surface of the earth is covered with thick cane brakes, apparently impenetrable except to the wild beasts.

Much time and labour are requisite for the clearing of these lands. The large trees are first girdled, and then the cane and undergrowth cut down. The vast number of trees thus destroyed, and the rapidity of their decomposition from the moisture and warmth of the atmosphere, must largely contribute to the causes of disease; but still more abundant sources of pestilent miasmata exist. Owing to the soft alluvial soil through which the Alabama flows, the course of the river is frequently changed, and the channels once occupied, remain filled with water, after the stream has diminished and receded within its banks. The sluggish and frequently stagnant waters of these lagoons, exposed to the intense and continued action of a scorching sun, are soon covered with a green scum, are the nidus of myriads of insects, and the surrounding atmosphere speedily becomes offensively tainted. Into the numerous small ponds the negroes are in the habit of throwing the decayed timbers removed from the cultivated land, and in no long time, a compound for the production of miasma is formed, which could scarcely be excelled by human ingenuity

It will readily be believed that a residence during summer and autumn, in such a vicinity, must be attended with great loss of health and risk of life. This experience has amply proved true, although some individuals whose constitutions have gradually become accustomed to this atmosphere do reside in such situations. Such persons, though not frequently attacked with the mortal diseases, so destructive to those who are accustomed to a pure air, nevertheless exhibit proofs of the baneful influence of the miasms in their mental debility and premature old age. The ability the negroes possess of resisting the heat of the sun, is not less remarkable than the constitutional peculiarities which enable them to bear more corporeal labour than the whites. They reside during the intense heat of summer in the most sickly situations, with the utmost perfect impunity, while the whites are obliged to retire in order to avoid the deleterious influence of the miasms.

At a distance of three or four miles from the river, we arrive at what is termed upland, or oak and hickory land, as this timber is there the most abundant. This soil, though not so productive as that we have just mentioned, is generally very fertile, and it is on this section of land that some of the most beautiful and highly cultivated plantations are situated. The deep vegetable mould which forms the soil, rests principally upon a stratum of red clay, which is very hard and mingled with pebbles bearing a considerable resemblance to pudding stone. The heavy rains which fall in winter soon wash away the superincumbent earth, wherever the surface is irregular, and expose a barren space, altogether unfit for cultivation.

The remoteness of this portion of land from the river, and its comparative dryness, render it less liable to the obstinate bilious fever common to the inhabitants of the river lands. Yet, bilious fevers of a very malignant character have prevailed here to a very alarming extent within a few summers past.

The third division of country, is that known by the name of prairie land, situated in the south western part of the county. They form one of the most striking features, not only of this section of Alabama, but also of a large part of the southern and western territory of the United States. They begin near the eastern boundary of this state, and extend without much intermission westward, towards the southern extremity of the rocky mountains. The surface for miles in extent is covered with a rich verdure, and strike the spectator with their strong resemblance to the meadows and grazing fields of a highly cultivated country. These plains vary from a few acres to a thousand or more in size, separated from each other by thin glades of wood:

not forming a dead level as is commonly supposed, but a succession of gentle risings and depressions, which have obtained for this the title of rolling land.

The soil is of a peculiar character, and extremely fertile, producing cotton in greater abundance, in favourable seasons, than the richest river land. There is a kind of shell limestone found at the depth of a few feet, which, unlike the limestone of Kentucky and Tennessee, is generally of a soft consistence and adhesive nature. The difficulty of obtaining good water, for drinking, &c. renders the prairie land objectionable as a place of residence; though in point of salubriousness, the prairie lands are not surpassed by the other parts of the state. This, among other causes, may be attributed to the comparative absence of animal and vegetable putrefaction, and the nature of the soil, which absorbs moisture so rapidly as speedily to become dry after the heaviest rains.

Climate.—The rainy season generally begins in the month of February, and with various intermissions continues until the middle of May. The water-courses overflow during the spring months. The highest flood which has been observed within the last fifty years, was that of April, 1822. From the hilly and unequal nature of the country through which the Alabama flows, the waters are collected with astonishing rapidity, and the river in the spring of the year frequently rises twenty or twenty-five feet within a few hours, inundating a vast number of fields. Lands subject to be thus overflowed, whatever may be their fertility, are comparatively of little value for the purposes of agriculture.

The summer usually commences about the first of May, and continues until the last of September; showers are generally frequent and profuse during this season. The summers of 1825–6 were generally dry, to which circumstance may be partly attributed the increase of disease during the last two years. During the summer the days are intensely hot from eleven until three o'clock; the thermometer ranging from 85 to 100° Fahr.* The nights are cool, and the atmosphere peculiarly loaded with moisture, so that when riding at night the hat and hair soon become wet.

The winter season is very variable, frequently changing from cold to warm, sometimes causing a thermometrical difference of twenty degrees in a few hours. Nevertheless, the inhabitants seldom suffer from inflammatory affections, such as pleurisy, pneumonia, or rheumatism. Catarrhal affections are sometimes prevalent, and when neglected lead to phthisis: the latter disease is very rare.

---

* In the year 1823, the coldest weather ever remarked by the settlers, occurred in the month of February. The thermometer was as low as seven degrees above zero: this severe frost killed all the orange, fig, and olive trees in the lower part of the state.

The white population of the county are principally emigrants from Georgia, North and South Carolina, and a few New Englanders. Most of them are sufficiently well off, not to be under the necessity of labouring for their own support; and many of them are provided with every comfort that wealth can procure. The slave population is very considerable; and in general, slaves are humanely treated, being well fed, clothed, and lodged.

Strangers or unacclimated persons generally suffer during the sickly season, which may be said to commence in June and continue until towards the middle of October. Those who have resided in the country for a few years, resist the heat of summer very well and are less liable to the prevailing fever than transient visitors. So powerful is the influence of the climate on those unaccustomed to it, that slaves who have lived several years in the state, are sold at a higher price than those brought from Maryland and Virginia.

The inhabitants of the river lands consider themselves as comparatively safe, if the rains are frequent and sufficient to keep the stagnant pools or lagoons well filled. To the residents on the oak and hickory lands, the same cause is productive of most fatal consequences. A great extent of cultivated land, very frequently manured with cotton-seed, is exposed to the scorching rays of the sun, after having been sufficiently moistened to allow of the most rapid decomposition of the vegetable matter. The air becomes loaded with the noxious exhalations and the injury to the health of the inhabitants is severe.

For the first two or three years after the settlement of Montgomery county, there was little or no sickness observed; but since the lands have been rapidly cleared of timber, fevers of a formidable type have become prevalent.

Taking into consideration the peculiar fertility of the soil, and the rapid and luxuriant growth of vegetable productions, the general mildness of temperature in the winter and the powerful heat of the summer; the extensive surfaces of stagnant water teeming with every material suited to the process of speedy decomposition, we cannot be at a loss to account for the fevers, which so frequently occur in the summers, with desolating force.

The fevers of Montgomery may be considered as forming two varieties, which may be termed inflammatory and congestive.

The inflammatory form of fever was preceded by the following symptoms; chilliness of the surface, extending down the back; in some cases the coolness was so light as only to be discoverable at the ends of the nose, fingers, and toes, while other parts of the body were preternaturally hot. Patients complained of great heat and suffocation, when the surface was cold and the heat only perceptible at certain points. The loins, knees, and large joints generally were very painful; head-ache, nausea and disposition to vomit, a small, quick, and variable pulse, with hurried respiration, were the symptoms of the first stage.

In the second stage the heat of the surface augmented considerably, the pulse was increased, full and unyielding; the face flushed, the conjunctiva red, excessive head-ache, tongue parched, and frequently delirium was present. The secretions were altered in character, and diminished in quantity, and the bowels were necessarily torpid. The excited stage being fully developed would continue for several hours, and even days, when a slight abatement would take place, about the same hour that the chill occurred on the preceding day. Sometimes no remission took place until the third day; in others the remission was so slight as scarcely to be discovered. The disease advancing, the symptoms become aggravated; the greatest distress, accompanied with much exhaustion occurred, and this violence terminated about the fifth, seventh, ninth, or eleventh day. Where the crisis is favourable, the pulse becomes soft, the skin and tongue moist, all the secretions more abundant, thirst diminished, respiration freer, and sleep natural. An unfavourable termination is indicated by the pulse becoming quicker, the respiration frequent, feeble and anxious, the tongue dark, brown, or black, and all the symptoms indicating the immediate proximity of dissolution.

The congestive form of this fever was not of such frequent occurrence as the inflammatory, but was altogether more formidable and fatal. The duration of the attack varied according to circumstances: the fatal termination speedily followed a violent accession, unless speedily relieved by energetic treatment. The symptoms were very deceptive; cases sometimes terminated in death before danger was apprehended, not occupying more than twenty-four, or thirty-six hours in their whole course. The patient was generally affected with great depression of all the animal and organic actions; a slight, scarcely distinguishable chill, laborious respiration, sense of weight and oppression at the præcordia, great pain in the head, pulse frequent, low, struggling, indolent, and occasionally intermitting, where the brain was affected. The heat of the surface was partial or circumscribed; the tongue, which at first was but slightly changed, as the disease advances becomes dark and almost black; the bowels were torpid, and loaded with dark fæcal matters. The sensibility of the skin was almost entirely lost; epispastics produced no effect. The muscular system was without power, and the mind prostrated. Stupor, delirium, convulsions, hiccup, involuntary discharges, with blotches, and gangrene of the extremities, marked the last periods of the disease.

The duration of this form of fever was various according to the violence of the attack, and the amount of congestion. In both varieties of the epidemic the functions of the liver, kidneys and skin were always in great disorder. Sometimes there was a redundant secretion of bile and urine, and at others both secretions were suspended. In some instances which fell under my observation the skin was thoroughly jaundiced, it was almost always dry and husky. Local affections were very generally complicated with the fever in the first variety of the disease. The spleen and lungs were seldom attacked with inflammation, but were during the first stage always considerably engorged. But the organs principally affected by the congestion were the liver and brain, the functions of which were so much interrupted or impaired as to be productive of the most alarming consequences.

The treatment resorted to during the cold stage, was such as appeared suited to shorten its duration, consisting chiefly of warm diluting drinks, warm bath, occasionally warm toddy and stimulating applications to the extremities. As soon as the system fairly reacted the use of the lancet was decidedly called for and the effect was always beneficial. But when the reaction was imperfect and feeble, the most injurious results would have ensued upon the same treatment. When the heat of surface was considerable, with head-ache and full pulse accompanied with much thirst, bleeding always proved of great advantage, and cathartic medicines subsequently operated much more efficiently.

Purgatives conjoined with local bleeding according to circumstances, were of great importance where the reaction was imperfect. When the heat of the surface was unequal, the senses impaired, and the secretions suspended with a slight disposition to vomit, no medicine was so efficacious as tartar emetic and ipecacuanha, in full doses, aided by warm bath. The temperature of the body would become equable, the secretory organs would resume their offices, and a copious discharge of bilious matter by vomiting, would leave the patient comparatively free from uneasiness, perspiring freely and disposed to sleep.

Emetics used with discrimination, had more influence in producing reaction than any other remedies that I have used, but in cases where great gastric irritability existed, they would probably have proved fatal. In these latter cases the nausea was promptly relieved by blisters. As co-operating to the same end, the saline mixture, soda water, lime water and milk, porter, infusion of columba, mint water and laudanum, and laudanum administered as an enema, were highly useful.

In all cases where general excitement quickly succeeded the use of an emetic, and the other means above noticed, blood-letting should always be premised before the administration of purgatives. Of this latter class, the mild ones proved most beneficial. When the liver was involved in the diseased action, I generally used calomel, and followed it up with the different saline purgatives, alone or combined with senna, or the castor oil; their action should be promoted by enemata, these remove the torpidity of the bowels, and are sufficiently active to evacuate the contents of the bowels, which are dark and tar-like.

Drastic purgatives were inadmissible; watery, and frequently bloody discharges, and great exhaustion following this exhibition. Whenever the secretion of bile is produced by the action of purgatives, the fever, pain, thirst, oppression and restlessness soon abates, and the other secretions being restored, the disease speedily yields. It is often useful to unite with the laxatives, the antimonials, in order to relax the cutaneous surface. Diuretics and sudorifics, as spiritus mindereri and laudanum, James's powder, spiritus nitr. dulc., nitrate of potash, serpentaria tea, warm drinks, as toast and water, lemonade, tamarind water, &c. were given to allay thirst, and keep up the discharge from the surface. If there existed any derangement in the cutaneous system, as partial perspiration; sponging the body with tepid vinegar and water, was beneficial by increasing the discharge from the skin. When the excitement is high, skin hot and dry, and great thirst; cold acid drinks, and sponging the body with cold vinegar and water, proved a valuable auxiliary in subduing arterial action.

Tonics.—Wine and bark, sulphate of quinine in porter, columba and gentian tea, quassia and orange peel, are tonics of great efficacy in preventing the recurrence of a paroxysm of fever, and preserving from relapses. When circumstances would admit it a removal from a low damp situation to a more elevated one, conduced very much to speedy recovery.

Diet, during convalescence, light and nutritious; exercise moderate: recovery usually followed in eight or ten days.

Art. VI. *Clinical Reports of Cases treated in the Infirmary of the Alms-House of the City and County of Philadelphia.* By Samuel Jackson, M. D. one of the attending Physicians.

Hospital clinical reports have of late been received with much favour by the medical profession. They are justly regarded as presenting facts, on the accuracy of which implicit reliance may generally be placed. The cases reported have been witnessed by numerous students, the records of the symptoms, of the attending circumstances, and the treatment, have been kept by persons, (the students of the house,) uninterested in the propagation of particular doctrines, or plans of treatment, who are not committed in their opinion, and who have no motive to exaggerate the symptoms, to conceal errors, or otherwise to deviate from perfect exactness in the particulars they daily enter in their journals.

In hospital practice the effects of particular remedies, and plans of treatment, when accurate ward books are kept, are more certainly to be determined than in private practice. A large number of individuals in the same diseases, are rapidly brought under view, experience is concentrated in a short period, and the general result can be ascertained by tabular statements. The patients are, besides, more absolutely subjected to the disposition of the practitioner; he is not embarrassed by the contrariness, the whims and prejudices of the sick; his ordinances are superintended by intelligent students, and executed by vigilant nurses. The facility and number of post mortem examinations, serve to test the correctness of the diagnosis of each case, to correct mistakes, and to ascertain with precision, the nature of the organic lesions, that have given rise to each train of symptoms. These are the circumstances that impart to hospital practice and experience its great value, and has caused it, at all times. to be regarded as furnishing the most important and precious information on practical details, as well as shedding a flood of light on pathological science.

The Alms-house Infirmary of this city is one of the best clinical schools in this country, from the number of patients brought into its medical and surgical wards, and the immense variety of the diseases that afflict human nature constantly to be found within its walls. The number of annual admissions into the Alms-house average above four thousand, and of those into the Infirmary over three thousand.

It has been a source of deep regret to those aware of the value of the experience of this institution, that it should have been of so little avail to the public. It is one of the methods, and of no little worth, in which it might compensate the expense of its maintenance. A laxity of discipline and want of system prevails in the infirmary department that is distressing and perplexing. The medical board possess no authority, and the responsibility of the students, apothecaries and nurses, being to the board of managers, who meet once a week, who are fully occupied with the mass of business brought before them in relation to the other departments, and who can seldom hear of any delinquencies, except by complaints made to them from the medical attendants, and which will never be done except in flagrant offences, it becomes impossible to enforce a rigid performance of the duties of the house.

The frequent changes in the board of managers, who are annually elected, and of students, who are appointed for a year, are subversive of wholesome order and systematic arrangement. The first, just as they begin to understand the character of the establishment, its wants, the principles of its government, and could prove of the highest utility, mostly retire from the office of manager, and are succeeded by others, devoid of their experience, who often enter upon the duties of their appointment with erroneous ideas of its nature, filled with prejudices and prepossessions, of which they require time and some observation and reflection to be disabused. The last, after having been drilled into their duties, are about becoming useful to the institution, and capable of executing with propriety all that is required of them, find their time is expired, and are replaced by new ones who are inexperienced, and require, on the part of the medical attendants, the same wearisome process of watching them, and urging to the performance of duties they have not the authority to enforce.

The above statement will explain the absence of all medical records in the Infirmary of the Alms-house. This institution has possessed the materials for giving complete histories of different epidemics that have prevailed in the city and suburbs, from the numbers of patients carried into it, as well as of epidemics that have existed in its wards, that would have proved of the highest interest and importance to the profession; but not the slightest trace of them is to be found in any records or documents of the institution. All its experience in this respect, as well as of the vast number of most important cases of disease has perished.

An attempt is now making to remedy this most grievous evil, and it is fully calculated, that by the assistance of the intelligent and zealous resident students at this time in the institution, the medical board will succeed in obtaining regular hospital records and case books to be kept in each ward. I propose to furnish, for the future numbers of this Journal, clinical reports derived from these sources, during the period of my attendance on the infirmary or hospital of the Alms-house. In the mean time, I shall offer for the present number, a statement of the cases of continued fever, that were brought during last winter into the clinical wards, under the direction of Professor CHAPMAN, and myself, with the details of some of the cases, illustrating the general plan of treatment pursued, the notes of which were kept and have been furnished to me, by the gentlemen then attached to the wards as resident students.

With the intention of exhibiting the kind of patients who are the subjects of the treatment in this hospital, it will be proper to give a general account of this institution. The Alms-house of this city, includes under the same roof, an infirmary or hospital for medical and surgical cases, a poor-house for the indigent, and a work-house for vagabonds. This last circumstance gives to it somewhat of a disreputable character, and few who have remains of a sense of decency and self-respect, and desire to be esteemed respectable, will seek refuge in its wards, unless compelled by absolute necessity. The majority of the patients are individuals of the very lowest order of society, many of them the victims of the grossest habits of depravity, and nearly all suffering more or less from intemperance. A large proportion of the diseases are chronic in character, the consequences of the abuse of ardent spirits, of exposure to the inclemencies of the season, of deficient or improper alimentation, &c. Acute diseases are rarely seen in the first week, more usually they are not brought into the house until the second, or third, or fourth week from the commencement, and it is very seldom the patient has not, from his habits, more or less affected the integrity of his constitution. It frequently happens, that the patient on admission, both in acute and chronic diseases, has advanced into the last stage, is absolutely in a hopeless condition, disorganization of some of the tissues or organs has taken place. and often he is in articulo mortis. It is a common practice, but which merits severe reprehension, to send patients, as soon as they are despaired of, into the Alms-house, there to die; and it has frequently happened that they have expired on the way, or before they could be got into a ward. It has been an occurrence in one week, for three patients to be sent from an institution of this city into the Alms-house, of whom one died in the yard, another on the staircase, and the third in half an hour after being placed in a bed. The Alms-house infirmary can be regarded as little better than a hospital of the incurable and the dying. It is uncommon for a week to pass without the admission of patients in the last extremity. This statement is made to show the difficulties that are encountered in the practice of this institution, and that the mortality of the house is not to be considered as a fair standard of the deaths, that occur under the courses of treatment adopted by the medical attendants.

Some observations on the general modes of treating diseases—methodi medendi—may be requisite, to give an understanding of the principles on which some of the cases that will be reported, have been managed.

There are three general plans or modes of treating diseases: the expectant—medicina expectans, the active or perturbating—medicina agens et perturbens, and the physiological—medicina physiologica.

The first, or the treatment of diseases by expectation, was the method of the philosophic Greek sects, and was that pursued and highly recommended by HIPPOCRATES, whence it has been named the Hippocratic method. The followers of this system consider the laws of the economy of man, or nature, as capable, to a great extent, of correcting the deviations of the natural actions, in which consist diseases, and restoring them to their normal condition. They thus recognise recuperative powers in the constitution or the whole of the organism, that tend to its conservation, and which give a disposition, if not interfered with, in the greater number of individuals and in most acute diseases, to a favourable issue. They believe these powers to be sufficient, in most instances, to the cure of diseases. Diseases, also, especially the acute, when left to nature, have been observed, at all times, to pass through successive periods of gradual development, of increase, of highest degree of intensity, of decline and convalescence. A solution is frequently effected by some of the secretions, as by urine, or sweat, or a purging, &c. or by a metastasis, when the disease is said to be judged, or determined by a crisis. From the extent of observations of this kind, made by the first spirits of the profession in every age, it cannot be denied, that most acute diseases have a spontaneous tendency to a cure, which is accomplished by the sole resources of the animal economy. These resources are more evidently displayed, and may be more relied on, in proportion as the patient has a sound constitution, is of mature age, and has not abused his organs, by gross violations of the rules of hygiene, in his habits of life. Acting on those principles and views, the expectant practitioner is a careful and cautious observer of disease; he contents himself with removing the causes that have produced it; he defends his patient from the lædentia, or whatever can injuriously affect him; he avoids troubling the spontaneous efforts of nature, by imprudent and ill-timed proceedings; and seconds them by a careful and intelligent application of hygienic means, both of a physical and moral character.

The expectant method has received the sanction and commanded the approbation of the most enlightened and highly gifted medical philosophers of every period. It was the system of the Greek physicians, from which it has been known as the *Greek medicine*—it met the approbation of the instructed Celsus, as the following sentence shows. multi magni morbi curantur abstinentiâ et quiete; it was advocated by Alberti, in his dissertation De cura per expectationem, and by Camper in a treatise, De optimâ agendi vel expectandi in medicinâ ratione; it was defended by Stahl in his work, Ars sanandi cum expectatione; it was adopted and enforced by Hoffman, in various tracts—De optimâ naturæ morbis medendi methodo—De medicina simplicissima et optima, motu, inedia, aquæ potu—De inedia magnorum morborum remedio; it is sustained and illustrated by Pinel in his Médecine clinique, and his Nosographie Philosophique. In fact, the expectant treatment has been for three centuries almost the exclusive practice of the French physicians. This circumstance arose from the great vogue the Hippocratic writings have possessed in France, and the purity of the medical profession of that country from all connexion with the trade of medicines, and the branch of pharmacy, which inevitably leads to the degradation of the science, and to abuses in practice.

It cannot be disputed by the most prejudiced, that expectation in medicine is a practice perfectly rational, that it is based on the laws of the organism, that it is fully adequate in most simple, inflammatory and febrile affections, to carry the patient with certainty and safety to a happy result. But, in diseases invading the system with great force, extending to numerous organs, crippling and disabling them in their functions, so as to prevent them from affording to each other a salutary aid, occasioning irregular and anomalous phenomena, breaking up the usual courses of diseases, and prostrating all the recuperative energies of the economy, expectation would prove, what it has been denounced to be, a study of death. In those cases, art must interfere with its salutary processes, and bring to discomfited and fainting nature, the succours of its powerful and renovating means —when they are wielded by an exercised hand and directed by intelligence and skill.

The Homœopathic practice of Hahneman, that begins to count so many followers in Germany, is nothing more than pure expectation. So inveterate and deep-rooted are preconceived notions and prejudices, that, accustomed to regard medicines as the only means of combating and curing diseases, the homœopathics attribute in their treatment every favourable tendency or change, to the undoubted effect of a millionth, billionth, and even quadrillionth part of a drop of the tinctures of bark, of digitalis, of cicuta, &c. rather than to any conservative actions of the system itself. It seems never to enter the thoughts of many physicians, that the all-wise Deity in forming the admirable "piece of work, a man," the most complex and refined of mechanisms, exposed to innumerable morbific causes internal and external, constantly subjected to a vast variety of aggressions, calculated to disturb the harmony of its actions, to disorder its functions, and to disorganize its structure, should have left it without any inherent powers for its conservation and protection. Without the aid of doctors or physic, those powers are now, as they were before either existed, perfectly adequate to the removal of many diseases. and to maintain the integrity of the vital forces from morbid lesions.

The active, disturbing or perturbating system. is directly opposed to the expectant. The practitioner who acts on this plan, lays aside the character and conduct. that BAGLIVI, in the opening sentence of his Praxeos Medicæ, so justly and beautifully attributes to a physician—medicus naturæ minister et interpres, quicquid meditetur et faciat, si naturæ non obtemperat, naturæ non imperat. On the contrary, nature is disclaimed as an auxiliary, and her efforts are regarded as more mischievous than beneficial. To use the language of the late Professor RUSH, in his lectures, nature, when the physician enters the sick room, is to be turned out of doors, as a noisy cat creating a disturbance. In acting on the disturbing method of treatment, the object is to cut short the disease at once, as some express it, and the most energetic means are had recourse to. "The kingdom of heaven suffereth violence, and the violent take it by force," Matt. ii. 12. is a text adapted to this school. The heroic remedies are exhibited with a lavish hand—a ceaseless and restless activity in prescribing and administering medicines prevails—every organ is called into action, every function is disturbed, every emunctory is attempted to be forced, to expel through it the disease. Bleeding, vomiting, purging, sweating, urination, salivation, expectoration, stimulation, rapidly succeed each other, and not unfrequently are attempted all at one time; remedies become every thing: they are regarded as omnipotent: nature, the conservative powers of the system, are sunk into nothing, their sanative influence is unknown, or superciliously treated with contempt; though happily for the patient, those despised powers, often triumph over the disease, physic, and the doctor, combined to his injury. The heroic remedies are in the highest degree perturbating in their actions, they possess a degree of activity not inferior to any, and superior to most of the morbid causes by which diseases are generated. They are agents from whose administration, if ill-timed, improperly selected, or to which a wrong direction is imparted, the most disastrous results may ensue. Their employment requires in the prescriber the greatest caution, extensive theoretical and practical knowledge of his profession, and consummate skill.

The active or disturbing plan of treatment should be followed with a wise reserve. Its energies are not to be displayed on every occasion, but brought to bear on those cases only, in which the implication of most of the important organs in the diseased action, the denaturalization of their functions, the suspension of the natural secretions, leave few healthy organs to resist diseased organs, and of the sympathies of healthy actions to counteract those of morbid actions, and, consequently, no rational expectation can be entertained, that the system is capable of its own protection. It is under such circumstances that active medicine is to be adopted, and the auxiliary aid it brings to nature oppressed and sinking in the struggle, often ensures a victory, when it would have been doubtful, or when defeat without its succour, was inevitable.

Active medicine is, however, too often empirical in character. Remedies are clothed with suppositious specific properties, that are ticketed against particular affections or symptoms. For fevers, there are febrifuges—for coughs, expectorants—for debility, (that little understood and much abused phrase,) tonics and stimulants—for the profluvia, astringents and absorbents—for convulsions, antispasmodics —for amenorrhœa, emenagogues—for dropsies, diuretics and hydragogues—and for all diseases the panacea mercury. Prescribed on principles like the above, the effects of remedies cannot be relied on. The same train of symptoms arises from causes the most opposite, belong to diseased conditions of organs exceedingly different, and requires an intelligent discrimination to decide on their character, and the means they indicate to be employed. Nothing besides is less demonstrated, than the specific effects of remedies; nothing less certain than a power to produce their denominative remedial results; nothing is more positive than that they frequently aggravate the very condition they are administered to remove. Remedies, then, are only to be considered, in reference to their mode of influencing the organic actions, both of the surfaces to which they are applied, and remote points, and the relationship between this influence and the existing state of the organic actions. On no other principles can they be usefully, safely, and satisfactorily prescribed.

The active or disturbing medicine, and to a great extent of fearful activity and empirical character, prevails in Great Britain; and deriving our science from that country, is common in the United States. The character of the English science has been affected by the vicious organization of the medical profession. Two-thirds of the practice of medicine in Great Britain, has been for some centuries, in the hands of apothecaries. This circumstance originated from a decision of the house of lords in an appeal from the court of king's bench, in the case of the college of physicians against ROSE, an apothecary, who had been prosecuted for an infringement of the statutes in prescribing medicine for the sick. The judgment against Rose was reversed, and by this most famous decision of the hereditary legislators and judges. the English apothecaries were authorised to prescribe and administer medicine to the sick, at the same time they were prohibited from charging for advice as physicians. The remuneration of the English apothecaries for their attendance, is derived from the physic the patient swallows, and the more they can get down him, the better is their pay. Should rest and a diet, with diluent drinks for a day or two be all that would be requisite, as it so frequently is, in the treatment, it is clear, the apothecary could not live by advising it; he must prescribe a draught, or a pill, or a julep, or some physic. to be remunerated for his services, and ten to one, if an active medicine be given, but a patient is made, who pays pretty well before he is done with the services of his attendant. The earlier English apothecaries, were for a long period, a very different class from the present intelligent and well educated men of whom they are composed. They were illiterate and ill-informed; they were not regarded in a respectable light; and something reproachful attached to the name. Their practice was necessarily empirical, consisted in a blind and confident reliance on medicines and specifics. to the entire disregard of regimen, whose salutary and efficient resources were wholly unknown and unattended to. Philosophical medicine, and an observation of nature; the study of the laws of the organism, the direction and modification of which, is the aim of the enlightened and truly scientific practitioner, could have no existence in a profession constituted on the principles of the English apothecary or general practitioner. The great mass of the medical profession of England being of this description, confounding departments that are different and should always be kept separate, uniting a trade to the science, and pharmacy to the practice of medicine, has imparted an unhappy influence to English medicine. It retains much of Arabism in its character, the distinguishing features of which were polypharmacy and an absolute confidence in pretended specifics. We still see in English medicine, the interminable search after new remedies, new medicines, new formulæ, to be continued with unabated ardour, as though the materia medica was not overloaded and clogged with the weight that has been heaped upon it; as though practice had not sufficiently demonstrated that the abundance of a pharmacy, is a certain proof of its inefficacy, and the number of certain remedies for a disease the evidence of their inutility; as though millions of experiments and two thousand years of experience, without the discovery of a single specific or absolute remedy for a disease, was not sufficient to demonstrate the utter futility of the expectation. It is time that this delusion of medicine, like the idle reverie of early philosophy—the philosopher's stone, should be consigned to oblivion.

Physiological medicine is of modern date, and, in its improved and rational character, BROUSSAIS is entitled to be regarded as its founder. The establishment of a system of medicine on physiological principles, is not a novelty. It has been frequently attempted. The system of the late respected Professor RUSH, was a physiological system of medicine, but physiology was, then, in a very different condition from what it is at the present day. Analytical anatomy had not made known, at least in this country, the true structure of the human frame; the doctrine of the membranes or tissues, which forms an epoch in medicine, was unknown in England or America, and both countries were equally ignorant of the General Anatomy of BICHAT, a work that Professor Chapman has pronounced in his lectures to be a revelation in medicine. It was impossible that a physiological doctrine of medicine could have done more in that state of the science, than have made approaches to the truth—perfection was not within the reach of human genius. That Dr. Rush failed, is no more than was to be expected, and offers no impeachment to the clearness of his intellect, the vigour of his reasoning faculties, or the soundness of his judgment; it is justly to be ascribed to the deficiencies of our anatomical and physiological science, in the elementary materials from which the principles of his system were to be derived. The general principles. however, of Dr. Rush, with some exceptions, corrected by the doctrines of general anatomy, will be found to approach to the leading principles of the physiological medicine of Broussais, and to confirm their correctness.

The pathological doctrines inculcated from the practical chair of the University of Pennsylvania, for some years past, by the present professor of the theory and practice, have, in many points. a strong similarity with those of the celebrated French reformer. From the deficiency of our physiology, from which science all sound and extensive views in pathology must be derived, he has, however, laboured under the same disadvantages that have embarrassed all the attempts, heretofore, made in the accomplishment of an entire physiological system.

Physiological medicine takes for its basis the structure of the human system, the healthy actions, and the laws that govern them. The human system is a complicated animal mechanism. It consists of numerous organs, each having peculiar functions; these organs are arranged into apparatus for the performance of certain offices: each organ is itself a compound, resolvable into elements called tissues or membranes, each tissue having a peculiar nature, actions and functions.

The organs and several apparatus of organs are of different importance in the scale of vitality; some only affect life remotely and indirectly, others immediately: they have different degrees of relationship to each other; some are so closely connected as to have a mutual and immediate dependance; with others the connexion is not as close, and in some of inferior grade, barely exists. The organs and apparatus are connected in two ways. The one depending on the functions as more or less essential to the actions of each. The other arising from the communication of impressions and actions made on one to another, which is through sympathy. The last differs in the organs in intensity and extent. It is most lively and most extensive in the most important organs.

All impressions made on the organs must be received by its tissues. Every impression produces some change or modification in the action of the tissue to which it is applied; and every change of action must be accompanied by change of structure. Disease then, the result of abnormal impressions, is a change in the action and structure of the tissue of an organ.

Disease is always local in its commencement, but other organs, by sympathy, partake in the diseased condition. The important organs, as having the most numerous and most active sympathies, are either primarily or secondarily affected in most diseases.

Diseases being deviations from the natural actions and structure of particular tissues, are always local, never general. All the tissues and organs are never found to be at one time in a morbid condition. The greater the number of local lesions, and the more important the organs, the more difficult is the restoration to health. Diseases being thus local, different parts or organs of the system may, at the same time, be in the most opposite condition, and require a different treatment directed to each.

From the above general outline of the principles of physiological medicine, it will be seen that every case of disease presents to the practitioner the following problem for solution.

Certain symptoms existing, to determine the organs and the tissues in a state of lesion:

The morbid organs and tissues being ascertained, to determine the nature of the lesions in each:

The morbid organs and tissues, and the nature of the lesions being determined, what are the hygienic means and therapeutic agents, whose modes of action on the tissues, whose physiological effects, will enable the practitioner to combat those legions, in the most direct and speedy manner, and with safety to the patient.

Such is the problem every physiological pathologists feels himself bound to decide to his own conviction, before he finds himself at liberty to commence a plan of treatment, the object of which is the active and powerful modification of the laws and actions of life.

Of the general methods of treating diseases, the last is that which commands my preference, and which I enforce in the management of most of the cases that come into my charge. In chronic diseases, that resist the rational plan of cure, I most usually resort to the expectant method, and it is only in a few obscure cases, where the other methods have failed, that the disturbing and empirical is put in requisition. It is with a view to illustrate the physiological practice, so much abused, and so little understood in this country, I propose to make publication of some of the numerous cases subjected to that system of treatment, and the general result.

The Alms-house Infirmary consists of six medical wards, three of which are appropriated to females and three to males. There are besides surgical wards, and cells for lunatics. In the spring, summer and autumn, when the clinical class does not exceed fifty or sixty, the students accompany the prescriber through the wards, and clinical observations are made at the bed-side. In the winter, when the class amounts from one hundred and eighty to two hundred, the most interesting and important cases are collected in the clinical wards, connected with which is a lecture and operating room. In this room the class assembles, and the patients are transported to it in their beds. Here they are examined before the class, the symptoms inquired into, the nature of the disease investigated, with observations by the lecturer on its pathology and treatment.

The medical wards are attended by Drs. CHAPMAN, MITCHELL, HODGE, and myself. August, September, and October are the term of my attendance. The *clinique* during the winter months devolves on Professor Chapman, with whom I have been associated in that duty for the last three years.

The regular clinical days in the spring, summer, and autumn months, are Mondays and Thursdays; in the winter, Wednesdays and Saturdays. On those days the class attends on the practice of the house, and clinical observations are delivered on the different cases. The attending physician visits the house on the intermediate days, according to the urgency that may exist, requiring his presence. The senior resident students prescribe during his absence. This explanation is requisite, as the treatment is sometimes commenced by the resident student, and is not always in conformity to the principles of the visiting physician.

CASES.

It is not in my power to give a statement of all the cases that occurred, from the absence of accurate, I may almost say, of any hospital records in the infirmary department. This defect is now remedied to a certain extent, and will enable me to give fuller statements hereafter. I am indebted to Dr. WALTON and Mr. KENNEDY, resident senior students, for a list of thirty-four cases of continued fever, to which the term typhus is so commonly, but incorrectly given. Of this number seven died, all of whom were excessively intemperate in their habits. To Dr. Walton I am also indebted for the histories of some of the following cases, which he recorded at the time they occurred, in a private case book he kept for his own instruction; a part of them is taken from the clinical ward book, in which some of the cases are recorded.

CASE 1st.—*Case of Fever, (extracted from case book of H. Walton,)* —Moses Howard, (black,) aged twenty-three years, was admitted into the Alms-house Infirmary on the evening of the 24th of September, 1826. He had been ill about three weeks. While at work at his trade, that of a blacksmith, he felt overcome with heat, and in this state he swallowed a potatoe, which caused immediate sickness of the stomach. Feeling thirsty, he took a drink of water, which was soon followed by puking, and he threw up what he had eaten at dinner. After vomiting he felt better. At dark he was worse and had nausea. He rested tolerably well through the night. After this he was attacked with rigors every day, followed by fever, which set in at noon and continued through the afternoon and night. Towards morning there was a remission of the febrile paroxysm. For the last three days his fever had been continued, and was attended with delirium. The symptoms on admission were—pulse quick, without tension—skin hot and dry—tongue foul, covered with a brown crust, except at the edges, dry and rather contracted—lips dry, scaly—teeth fuliginous—eyes heavy, the upper half of the ball more injected than the inferior portion; suffused with tears. He has no appetite whatever—there is tension of the abdominal parietes—complains of pain in the abdomen, increased by pressure over almost every part of it. His head is painful and attended with delirium.

25*th.* This morning I find him about the same as last evening. He dressed himself and was anxious to go down stairs—his hands are cold—he picks at the bed cloths and has slight subsultus tendinum. I did not disturb him during the night, but commenced the treatment this morning as follows, viz.:—

A blister to be applied to the occiput and back of the neck—bowels to be evacuated by simple injections—feet to be bathed in water as hot as can be endured—diet to consist of preparations of sago—drink to consist of barley water, acidulated.

About eleven o'clock Dr. Jackson saw the patient; at this time the eye balls were highly injected and rolled upwards—skin cold—pulse small and frequent—stupor. In addition to the treatment, four cups were directed to the head, two of which were to be dry, and two with scarifications, also twelve leeches to the epigastrium, followed by warm fomentations to the abdomen, and frictions of terebinthinate decoction of cantharides to the extremities. The leeches were applied in the evening. Blankets wrung out of hot water to his legs.

26*th.*—Very much improved. His strength has increased. There is reaction with more heat of the skin—a better pulse—no subsultus tendinum—eyes less injected and not turned upwards.

28*th.*—Better. Treatment consists in frequent application of blankets wrung out of hot water to his extremities. To have to-day a simple injection and a dose of castor oil. The warm fomentations to the abdomen to be continued—injections of cold flaxseed mucilage.

29*th.*—Improving very fast—the heat of his skin is nearly natural—tongue becoming moist. Diet to-day, to have the addition of chicken water.

30*th.*—Improving. The warm fomentations are still continued to the abdomen. Bowels kept open by simple injections of flaxseed tea.

October 1*st.*—Still improving—tongue nearly clean—pulse regular—strength increasing.

2d.—Sitting up this morning, but is ordered to bed, as he is not considered sufficiently recovered to bear exertion. Diet; soup, gruel, &c.—*Evening.* Complains that his bowels are confined. Ordered a simple injection to remove this.

3d.—Sitting up at times—complains yet of debility. Diet; soup, bread, gruel, &c.—drink, barley water. Directed him to drink of the following tonic decoction:—

℞. Pulv. Cinchon. opt.	℥ss.
Rad. Colomb.	ʒij.
Cortex aurant.	ʒi.
——— cinnamon.	ʒss.

Add to a quart of boiling water—reduce by simmering to three half pints.

7th.—Walking about—fairly convalescent.

23d.—This patient has rather a slow convalescence. This Dr. Jackson ascribes to too great an indulgence in eating meat, &c. He therefore orders him to have nothing but barley water for twenty-four hours. To take also ℥ss. ol. ricini.

November 4th.—Convalescence proceeded rapidly under a more restricted regimen. Discharged cured.

Observations.—This case, at the time it was presented to our notice offered a train of formidable symptoms. I remarked to the clinical class at the time, that it had been customary to combat the condition of the system, which was one of great prostration, with tonics and stimulants, freely administered. But this practice in the Alms-house, having so frequently failed to accomplish the ends that had been looked for, I was discouraged in attempting it in the case then before us. The state of the intellectual faculties, the injected condition of the eye and its tendency to be constantly rolling upwards, with the convulsive twitchings of the muscels, were complete evidence to my mind that the meninges of the brain were the seat of considerable irritation: the dry, brown, parched tongue, the extreme sensibility of the epigastrium, the nausea that had early existed, were equal indications that the intermittent irritation had become fixed, and we had now a gastritis of no slight intensity to contend with. The prostration was, then, the consequence of this condition of the brain and stomach, by which, in the first place, the nervous functions were in a state of lesion, and were maintained in that state by the sympathetic irritation directed on the brain from the stomach; and in the second place, the concentration of irritation in the stomach and small intestines, constituting them a focus of the vital energies and the circulating fluids, at the expense of other organs, was the immediate cause of the diminished actions and enfeebled functions of the skin, of the central organ of the circulation and of the pulmonary system. From this view the indication was to diminish the excess of irritation in the brain and stomach, and operate a revulsion on the surface. Notwithstanding the degree of prostration and apparent debility, I would therefore venture on a direct but moderate local depletion to act on the two points, the seats of the irritation; to allay that of the stomach by cooling and demulcent drinks, while the skin was excited by means of moist heat, by enveloping the half of the body in blankets rung out of water as hot as could be borne, and renewed night and day as soon as they began to cool. This mode of stimulating the skin, when it is intended to produce a revulsion from the brain, I prefer to sinapisms or blisters, when cerebral or meningeal inflammation exists, as pain is a direct and energetic stimulus of the brain and almost every organ, and often aggravates and even excites inflammations in the brain, stomach, &c. The result of the treatment was highly gratifying, especially from the rapidity with which the very formidable symptoms disappeared. It is to be remarked that the convalescence was retarded by the full diet allowed, in the expectation of conferring strength.

Case II.—Ann Riggins, aged thirty, fair complexion, delicate frame, sober habits, admitted into the Alms-House. February 12th, 1826.—She had been sick upwards of three weeks, and was a patient of one of the Dispensaries—after exposure to wet and cold, she had been seized with pains in the back, head, and extremities.—Fever succeeded, and which had continued until her entrance into the house. According to her statement she had taken during her treatment four emetics, a number of powerful purgatives, and nitre powders. A large blister had been applied over the epigastrium, showing that gastric symptoms had existed, and her extremities were also blistered.

At her admission into the ward at twelve o'clock, M. she presented the following symptoms—skin dry and husky, eyes injected, cheeks flushed; tongue dry, hard, cracked, pointed, brown, and crusted; bowels costive, extremities cold, pulse scarcely perceptible, breathing short and difficult, stupour amounting almost to insensibility, great distress evinced on pressing the epigastrium.

The lower half of the body was immediately wrapped in blankets wrung out of warm water, a common house injection was ordered—acidulated barley water for drink.

Evening—skin more natural in temperature and feeling, pulse more developed, coma continues—cups to be applied to temples and back of neck, cold to head, warm fomentations to lower extremities to be continued during the night—same drink.

13th.—Is much better—stupor relieved—converses freely and gave the history of her disease and previous treatment—complains of no pain except when she coughs, no pain in head, eyes less injected and face not as much flushed, tongue becoming moist but is furred; feet warm, pulse full and soft, bowels freely opened by injection—continue treatment. Five, P. M. slight increase of fever, with some difficulty of breathing, bowels not moved since morning, injection given at nine P. M.—fever soon after subsided.

14th.—Improving—fomentations omitted.

15th.—Has return of pain in the head, eyes more injected, tongue brown and dry, pulse feeble, bowels not opened.—The warm fomentations to be renewed, and an enema to be administered. Nine P. M. pain in the head removed, tongue moist, no fever.

16th.—Her feelings are better, a disposition to coma exists, the eyes are injected and when sleeping, they roll upwards under the lids half closed—fifty leeches behind the ears, and an irritating revulsive injection of infusion of jalap, ʒi. senna ℥ii. water ℔i.

Evening—bowels opened three times by injection, stools natural colour, head very little relieved, tongue moist but furred.

Sinapisms to ankles, and fomentations to be continued, hair to be removed from the head, and cold constantly applied during the night.

17th.—Much better, no disposition to drowsiness, eyes clear, no pain in head, tongue furred but white and moist. Ordered ℥ss. castor oil—sago for diet.

18th.—Continues mending, bowels opened by oil, tongue moist, fur cleaning off, no pain in epigastrium or abdomen, pulse and skin natural.

19th.—Entered into convalescence, diet increased.

Observations.—Riggins had been subjected to the perturbating practice, employed with great activity, but without the least improvement—it may be said with an aggravation of the symptoms. When she entered the house, her condition was certainly most unfavourable, if not desperate, but a treatment calculated directly to diminish the inflammation existing in the stomach and meninges of the brain, brought about an immediate change, and placed her in safety.

Case III.—Fleshower, aged about thirty-five, an assistant nurse in the women's clinical medical ward. In the fall she had intermittent fever, for which she had entered the house. It was accompanied with violent paroxysms of fever, head-ache, and gastric irritation; she was bled from the arm and put on barley water for sole diet. The intermittent disappeared after the third or fourth day of treatment; she had continued well and was employed as an assistant in the ward, until January 10th, when she was attacked with chill, pains in limbs, followed by intense head-ache with pain in the chest. The bowels were bound: the tongue dry, furred, brown colour; nausea, restlessness, jactitation; epigastrium sensible, pressure occasioning acute pain; thirst ardent, eyes injected with blood; pulse full, frequent, tense; skin hot and dry.

Twelve ounces of blood were taken from the arm, an injection of infus. sennæ was directed, cups to head and epigastrium, blankets dipped in hot water to the legs, cold to the head, acidulated demulcent drinks taken cold.

January 11th.—Bowels opened by injection, pain in epigastrium increased, distress of patient greater, all the symptoms more unfavourable. Simple enema to be repeated, and sixty leeches to epigastrium; the leeches were applied at twelve o'clock. Evening—Better in every respect immediately after the application of the leeches, the head-ache, pain in epigastrium, restlessness and distress were dissipated; the skin is now moist, and of natural temperature, tongue moist and soft. The hot fomentations to lower extremities continued: diet, acidulated barley water.

12th.—Improving, diet continued.

13th.—Still better.

14th.—Committed an error of regimen, fever returned; tongue dry, furred; pain in side. Cups were directed to be followed by a blister; not experiencing relief, some hours after V. S. ℥xii.—absolute diet.

15th.—Better.

16th.—Breathing oppressed, pain returned—V. S. ℥viii.

17th.—Better, pain continues, and pulse excited—V. S. ℥x. treatment, absolute diet.

18th.—Improving.

19th.—Symptoms have all disappeared; increase diet.

20th—Convalescent.

Observations.—In this case the patient came under treatment, which rarely happens with the patients of this institution, from the commencement of the disease, and the physiological treatment could be brought into action, against the simple disease not aggravated by the effects of disturbing remedies on the organs. Cups were resorted to in the first instance, to economise the expense of leeching. I have always observed, however, that cups to the epigastrium, when it is very sensible, and pain is acute on pressure, by the pain they occa sion, aggravate the symptoms. This case is an instance of the kind. The effects of the leeches in reducing gastric irritation, were most conspicuously displayed in this case. It is also to be remarked, that the cerebral symptoms were immediately relieved on the diminution of the gastric irritation, by the leeching. This circumstances I have repeatedly observed. It is a strong proof, that in fevers the celebral disorder is sympathetic, and this effect may almost certainly be relied on, from local depletion from the epigastrium in fevers, when the continuance of the morbid sympathetic irritation has not become permanent in the brain or its meninges.

On the 14th, pleuritic symptoms were manifested, which easily yielded to a pure, unmixed antiphlogistic treatment.

Case IV. ——— Connor or Forrest, aged forty-two, small stature, dark complexion, was admitted December 24, 1826, from an outward. She had been complaining several days, and some purging medicine had been given to her. Slight fever existed, with cough, for which an expectorant mixture had been prescribed with barley water. I saw her the first time on the 29th. She then complained of sore throat, which was inflamed—the tonsils enlarged—she had fever—delirium—appeared to suffer great pain, moaning loudly, and often screaming—very restless, not keeping one posture five minutes —tongue furred, dry and hard—epigastrium very sensible, and intense pain resulting from pressure—nausea and occasional vomiting. Leeches were directed to be applied to epigastrium—warm poultices of flaxseed and onions around the throat—cloths dipt in tepid infusion of flaxseed to be constantly applied to abdomen—and blankets, wrung out of hot water, to the lower extremities—cups to the head —acidulated barley water.

30*th.*—A slight amendment—pulse irritated, feeble—tongue dark —teeth fuliginous—the skin continues dry—vapour bath, made by putting hot bricks under the bed clothes, supported on hoops, and pouring on them vinegar and water—delirium and head-ache—the ward is kept disturbed by her moans and screams. Blister to back of neck—frictions with terebinthinate decoction of cantharides to legs.

January 1*st.*—Better—tongue moist—ideas less confused—temper irritable—jactitation incessant—two beds are placed beside each other, that she may toss herself into them alternately—throat better —pulse small and irritated. Ordered injections.

2*d.*—Considerable amendment, especially in the cerebral symptoms, which have nearly subsided—temper very irritable. Continue treatment—begins to sleep, and is less noisy.

3*d.*—Continues to improve—treatment the same.

4th.—Better—sago for diet.

5th.—Gradually improving—tongue moist and soft—skin natural—bowels regular.

6th.—In changing the stoves yesterday, the ward became very cold—a relapse took place in the night—throat sore, with dry tongue. Poultice to throat—vapour bath, with fomentations to extremities and abdomen—acidulated barley water and sago for diet.

7th.—Much better—fomentations and diet continued.

8th and 9th.—Continued to improve.

10th.—Was removed to clinical ward.

11th.—Not as well—took cold by the removal—fever—dry tongue—pain in epigastrium—the former treatment renewed.

12th.—Better—tongue still dry.

13th.—Improving—skin dry.

14th.—Same as yesterday.

15th.—Porter and water—with spiritus mindereri and black drop at night.

16th.—Convalescing.

Observations.—This woman had been an inmate of one of the out-wards for some time—her general health was bad—the skin of an unhealthy hue, and the countenance exhibiting the characters of a person advanced in life.

From these circumstances, and the depressed and enfeebled state of the circulating powers, depletion was very sparingly employed. External revulsives, with absolute diet and demulcent drinks, were alone relied on, and proved fully adequate to the relief of symptoms that assumed for a time a most threatening aspect. I have never seen a patient in whom restlessness was so distressing. The assistants were occupied day and night in removing her from one position to another. This feeling has generally been remarked as one of very unfavourable augury.

Case V.—Catharine Shearer, aged twenty-four, fair complexion, delicate frame, has enjoyed good health—a domestic servant. Three weeks previous to her admission, while menstruating, was exposed to wet and cold. She was attacked with rigors; pain in the head, back, and stomach succeeded, followed by a severe febrile paroxysm that lasted for eight or ten hours. She has had similar paroxysms daily, and the intermissions have not been complete. She has been a patient of the Dispensary, and has been treated with cinchona and other tonics. During her disease she has continued to emaciate, and is now very much reduced in flesh and strength.

November 10th, 1826—She was admitted into the clinical ward.

presenting the following symptoms: emaciation, prostration of strength, heaviness and torpor of mind, cheeks flushed, tongue furred but moist, dry troublesome cough. some dyspnœa, pulse frequent without tension, skin hot and dry. bowels open.

Treatment.—ʒii. spiritus mindereri every two hours—warm pediluvium—cold applied to the head—cool acidulated drink.

11*th.*—Fever diminished—nearly a complete remission—exacerbation in afternoon—tongue furred in the centre, moist and clean on the edges—face flushed—pulse frequent—irritated—delirium. Treatment continued.

12*th.*—Better—remission more complete—exacerbation of the afternoon more moderate—less delirium.

13*th.*—Fever returned at eleven A. M.—continued through the day—delirious at night—jactitation—difficult to retain in bed—diarrhœa, discharges watery and yellow.

14*th.*—Improvement—more remission—less exacerbation—pulse firmer and more regular—skin softer and more natural.

15*th.*—Same as yesterday—treatment continued.

16*th.*—Fever as usual. Cold flaxseed decoction to be kept constantly on abdomen. Allowed chicken water.

17*th.*—More of a remission—vomited last night bilious matter—skin softer—pulse firmer. A laxative drink, composed of manna ʒii., crem. tart. ʒi., pruna gallica ℥iv., to a quart of water, was directed.

18*th.*—Rigors this morning of fifteen minutes duration—febrile paroxysm as usual—several alvine discharges.

19*th.*—Chill and fever again to-day—symptoms better—respiration freer and fuller—tongue nearly natural—pulse fuller and less irritated—countenance more animated. Ordered infusion of horehound for occasional drink.

20*th.*—Chill and fever returned, which terminated with sweat—other symptoms improving.

21*st.*—Same as yesterday—the sweat more copious.

22*d.*—Paroxysm as usual. From the repeated occurrence of the febrile paroxysms, while the tongue and appetite indicated the almost entire disappearance of the gastric irritations, the cerebral symptoms having also totally disappeared, Dr. Jackson made a careful examination of the abdomen to ascertain whether some local point of irritation did not exist there. The right iliac region was found to be exquisitely painful on pressure—twenty-five leeches were applied to it in the afternoon.

23*d.*—No return of the chill and paroxysm of fever to-day—the tenderness of the iliac region less—expectoration of mucus—takes a simple cough mixture—horehound tea—acidulated barley water—chicken water—flaxseed decoction to abdomen.

24th.—A slight chill and light fever to-day—feels stronger, and is improving. Treatment the same.

25th.—On the expected period of the chill, gave tinct. thebaic. gtt. xx.—no paroxysm to-day—improving in strength.

26th.—Convalescing very fast—is cheerful—a number of furunculi have appeared where the leeches were applied—cough better—free expectoration.

27th and 28th.—Recovering rapidly—diet increased.

Observations.—Shearer, on her admission, had been under a tonic treatment, instituted from the paroxysmal type the disease assumed with her. At that time irritations had become diffused; they were seated in the stomach, the brain, the lungs, and the intestines; they were threatening to assume the chronic state, and the general forces of the system were wasting, with rapid loss of flesh. Active depletion was not admissible, nor was an energetic practice by powerful remedies to be attempted where so many organs were involved, and the prostration of the forces of the system so great. An expectant method was therefore adopted, aided by local means calculated directly to reduce the local morbid excitement of which the different organs were the seat. It is to be observed in this case, that very speedily on the cessation of the stimulant treatment, and by the use of cold applications to the head, and demulcent acidulated drinks taken cold, the brain and stomach were withdrawn from the circle of morbid lesions. Notwithstanding the paroxysmal type continued, and became even better defined, the intermission being more complete. It appeared to be maintained by the irritation of the lungs, and disease in the ileo-cæcal region of the intestines. When fevers assume the chronic state, they are generally maintained by a lurking irritation or inflammation in this last situation, and many of the fatal terminations are the consequence of ulcerations and disorganizations in this portion of the alimentary canal. This will be shown by dissections in a future report. In Shearer's case, the pain produced by pressure on the right iliac region was very acute and elicited from her strong complaints. As soon as the concealed enemy was discovered, it was attacked by leeches, and the amendment was immediate. I am under the impression that cups and a blister were applied to the chest; but they are not on the record.

Case VI.—Sarah Mullin, aged nineteen years, was admitted into the Philadelphia Alms-house Infirmary, on the 7th of November, 1817, when she stated her case as follows, viz.: she had very recently arrived in the United States from Ireland, of which she was a native, in good health.

On the 5th of November, after having exposed herself to wet without shoes, and whilst perspiring freely, she experienced sensations of chilliness, accompanied with pain in the back and head—dyspnœa—oppression about the heart—sickness of the stomach, and violent pains in the abdomen. On the following day an emetic of tart. antim. was exhibited to her, which produced free vomiting, but without relief of her symptoms. A dose of Epsom salts succeeded, and after its operation she felt some relief. At the time of her admission she complained of pain in the head—pain between her shoulders—difficulty of breathing—palpitation of the heart—wandering pain in the extremities, and cramps of the muscles of the legs and feet. Her bowels were free. She was directed to be cupped over the forehead, to have lemonade for her drink, and to make use of hot pediluvia two or three times through the day.

10*th*.—She was transferred to the clinical ward. Still complained of some pain in the head, and some tenderness from pressure over the epigastrium. In the afternoon had a febrile paroxysm—tongue pretty clean—bowels regular—pulse firm—skin inclined to be moist. Treatment continued with the exception of cupping.

12*th*. Better—tongue only slightly furred—pain in the head inconsiderable—pulse regular—some tenderness of the epigastrium remaining. The treatment consists in the exhibition of lemonade and neutral mixture—to use hot pediluvia as a revulsive.

13*th*.—Morning. Improving—tongue broad, moist, only slightly furred—pulse slow and pretty firm—she appears to be convalescent. Afternoon. Complains of pain in the head darting across from one temple to the other. Directed to be cupped—to have sinapisms to her legs, and to have a hot pediluvium.

14*th*.—Improving—tongue nearly clean—pulse slow and soft—skin cool.

From this period she convalesced, her diet was improved, and she was discharged from the institution, in a short time after, cured.

Observations,—The above is a case of simple fever, the result of exposure to cold, while heated and in a free perspiration. The gastric, cerebral, and thoracic organs appeared to be the seat of the irritations that were excited. This case shows the facility with which recent and light affections yield to a simple antiphlogistic plan of treatment.

Case VII.—Margaret Curran, aged twelve years, sandy complexion. Four weeks previous to her attack, had arrived in good health from Ireland. She had been exposed for some days to cold, and after the usual premonitory signs, was attacked with fever. She was admitted into the infirmary on the 15th of January, 1827. At this time her symptoms were a smart fever—pulse tense and full—excessive and distressing pain in the head and limbs, tongue covered with a white fur, but moist—thirst—epigastrium not very sensible. Treatment—venesection ℥x.—senna and manna infusion—hot pediluvium at night.

16*th.*—Bowels have been freely opened—pain in head relieved—that of limbs diminished—the epigastrium has become sensible, as well as the abdomen generally—the tongue is dry, and the fur has assumed a brown aspect, approaching to black. Thirty leeches to epigastrium; blankets wrung out of hot water to extremities. Fomentations of decoction of flaxseed to abdomen. Gum water lemonade.

17*th*—Amendment of all the symptoms—continue treatment.

18*th* and 19*th.*—Continues to improve.

20*th*—Convalescent—milk and water gruel for diet.

21*st.*—Increase diet—discharged the ward well in a few days.

Observations.—Curran exhibited another instance, of which so many are observed amongst the lower classes of the effects of suffering from cold. The impression of cold continued for some time on the surface, induces direct debility of its vital forces and actions. The circulation of its capillaries becomes sluggish, or nearly ceases: this great reservoir of the circulating fluids no longer attracts and receives them into its vessels. By the diminution of its vital forces and its circulating fluids, they augment in other organs or tissues, and in those especially which were previously in a state of irritation or excitement, and in consequence, morbid irritations of various and sometimes of several internal organs and tissues, are the result of the action of cold on the exterior surface. Thus it may be productive of inflammation of the stomach, small or large intestines; of the liver or peritoneum; of the lungs, or the lining membrane of the bronchiæ, or pleura; of the brain or its meninges; and several of these inflammations may occur at the same period.

In Curran, we perceive gastro-meningitis, with rheumatic pains, were the consequence of exposure to cold thinly clad.

Previous to her admission she had been subjected to no treatment. The bleeding and purging dissipated the affection of the head, but the gastric symptoms increased. It is not improbable this was the effect of the purgative. Local depletion, and direct antiphlogistic remedies, however, removed immediately this excess of irritation, and a few days of diet produced rapid convalescence.

Case VIII.—Catharine Shane, aged eighteen years, entered the Alms-house, November 12th, 1826. She had recently arrived from Ireland, in a ship crowded with passengers, some of whom were sick on the passage. At the time of arrival she was in good health. When admitted into the infirmary she was in the fourth day of her disease. She was attacked with violent pain in the head, and sickness of stomach, with great soreness of the mouth. The symptoms at the time she entered the clinical ward, were, fever—pulse frequent and full—tongue dry, brown, with surface broken by fissures, edges cleaner than middle, but also dry—skin hot—tenderness of abdomen and epigastrium on pressure—several stools per diem of yellow colour and watery consistency. Cups were applied to abdomen and epigastrium.

13*th.*—Nearly same as yesterday—abdomen and epigastrium less tender. Directed her to take ℥ss. neutral mixture every hour during the paroxysm of fever—lemonade and barley water for drink. Three P. M. pulse frequent and irritated—tongue cleaner—very slight delirium.

14*th.*—No better—tongue dry and fissured, dark brown—pulse weak and irritated—suffused cheeks. Blisters to legs—

Antimon. Tart gr. $\frac{1}{8}$,
P. Ipecac. gr. $\frac{1}{3}$,
P. Opii. gr. $\frac{1}{3}$,

every two hours. Neutral mixture continued, with same drinks. Seven P. M. partial moisture—wandering in mind—picks at the bed-clothes—gets out of bed at times—tongue dry and fissured—pulse quick. Blister to back of neck—sinapisms to ankles.

15*th.*—Continues in same state—hair to be removed—sinapisms to feet—pulse frequent, 120, and weak.

16*th*—Rested better last night—delirium slight—seems better this morning—tongue cleaner on the edges—bowels opened by an injection. Evening. Pulse feeble—wine whey, ℥ss. every half hour.

17*th.*—Better—rested tolerably well, has more sensibility—complains of the sinapisms—expression of countenance more animated—respiration fuller and more natural—pulse frequent and has more force than yesterday. Wine whey continued.

18*th.*—Much worse—pulse frequent and feeble—muttering delirium—tongue dry, and covered with dark brown fur—restlessness—skin torpid. Carbonas ammoniæ every hour—wine ad libitum—sinapisms—blisters to different parts. All proved ineffectual in rousing the actions of the system, and she expired with a short agony early in the afternoon.

Remarks.—This case was not treated strictly on the physiological principles, and the deviation will be remarked by comparing it with the preceding cases. The patient entered the infirmary on a Sunday. With the existing symptoms, an active local depletion, if not general bleeding, it appears from the history of the case, would have been adviseable. From económical considerations, leeches are often omitted in the management of some cases in the Alms-house, and are substituted by cups. These last seldom answer in fevers with high gastric irritation. The pain they occasion, and the pressure they produce, often increase the gastric distress instead of alleviating it. I once witnessed convulsions brought on by the application of cups to the epigastrium, when very sensible in a case of fever. In the present instance they at least proved of no utility; no abatement of symptoms ensued from their application. A prescription was directed on the 14th with a view to an alterative and diaphoretic effect, for which last the neutral mixture had been prescribed. In fevers, in which the gastric irritation is exalted, attempts to excite the secretions by remedies of this character, prove most generally abortive.

Symptoms considered usually as indicative of prostration, very rapidly came on, and stimulants at first to the external surface, and next internally exhibited were called into requisition. Not the slightest momentary alleviation, which so frequently is induced by stimulants, and seem to sanction their employment, succeeded to their administration, and the patient sunk with rapidity. The body was removed by the friends of the deceased, and an examination, the only means of determining the nature and extent of the morbid lesions. was prevented.

This patient was not seen by Dr. Chapman.

The preceding are those of the cases of continued fever, that occurred during the last fall and winter, of which I am able to collect complete histories. In the next number I shall be enabled to present additional cases, accurately recorded, and accompanied with post mortem examinations, illustrating the character of the diseases, and the condition of the important organs, whence result the fatal terminations of fevers.

Art. VII. *Observations on Piperine, with the Formula for it Preparation, &c.* By George W. Carpenter, of Philadelphia.

SINCE the discovery of quinine and cinchonine by the celebrated chemists, Pelletier and Caventou, vegetable chemistry has made rapid advances. The recent experiments upon vegetable matters have not only swelled the catalogue of useful articles, but have given an additional stimulus to the prosecution, and opened a rich field for investigation to numberless votaries. From a state of neglect and obscurity, this department of science has emerged with unparalled rapidity, to a most exalted position, and the numerous valuable discoveries which have resulted, have ranked it among the most important branches of chemical science.

Every vegetable substance in the materia medica that has yet been subjected to chemical analysis, has produced an elementary or alkaline principle, upon which the virtues and activity of the medicine entirely depend. Even opium which acts in the double capacity of stimulant and sedative, forms no exception to this observation, two principles having been extracted from it; one possessing stimulating, the other the sedative powers, as we have remarked in a former paper.

These isolated substances possess many and great advantages over the crude materials; the active principle is concentrated by the separation of the injurious and inert portions, thus obviating almost entirely the difficulty of exhibition, and facilitating a more speedy and certain action on the constitution. It is well known that many substances in their crude state, in consequence of their bulk and insolubility, cannot in many cases be administered in sufficient quantity to produce the desired effects; in such instances the alkali is well adapted as a substitute, the dose being comparatively small. Another and no less important advantage of the alkaline principles is the uniform persistency of their strength. No one will for a moment question the inconveniences and evils resulting from the great uncertainty of effects, and differences of activity in most of the crude materials; and some of the most important are subject to these defects. For example, there are twenty-five species of Peruvian bark, each one differing in strength. Bark even of the same species, from a difference in adventitious circumstances,* to which it is always exposed, and which, though sometimes scarcely affecting its external characters always injures its properties, is rarely if ever found of uniform quality. In the preparation of quinine, I have met with bark of the same species, and of the same importation, differing twenty-five per cent. in the product of the active alkalies. The physician, therefore, would have been deceived in the strength and consequent effect of this bark, while the quinine is universally the same. For example, the quinine produced by the inferior bark, although less in quantity, was fully equal in quality. If the practitioner, therefore, may be so much deceived by the difference of strength of the same species of bark, how much more will he be disappointed, should he meet with those which produce but one-eighth or one-twelfth of the quantity, and some yield even but a trace of the principles upon which their febrifuge properties exclusively depend.

---

* See Carpenter on Cinchona, vol. 9, p. 363, of the preceding series of this Journal

The preceding observations in support of concentrated medicines, are made in consequence of there being some few who disapprove of vegetable alkalies, and reject their use on all occasions, giving preference to the crude materials. If the opinions of these persons were drawn from experiments, they would certainly be entitled to credit and respect, but where an opposition is made to admitted facts, without advancing a reason, experiment, or authority of any kind, such denunciations can only be considered the effects of prejudice, and should be appreciated as such.

The object of the present communication is to describe a new principle, recently discovered in black paper, which has been denominated piperine, and which has been proved by careful experiments to be an active remedy in intermittent fevers, and has been employed with much advantage also in typhus fever and periodical head-ache, and from the testimonials given in its support, seems to bid fair to become an important addition to the Materia Medica. It may be employed in doses of from one to four grains—it has been given in several cases of intermittent fevers in doses of one grain, and was attended with as much success as the quinine. It is found to be a valuable adjunct to that substance, equal parts of each acting with more energy and success, than the whole quantity of quinine.

Black pepper in its crude state has long been known as a valuable medicine, and is stated to be an excellent adjunct to bark in intermittents, and Mr. Rennie* observes that Mr. Brande, must certainly be mistaken, when he says it acts only as a warm condiment, agreeable to the stomach.

---

* See his Supplement to the Pharmacopœias of London, Edinburgh, Dublin, and Paris.

It is mentioned in Dr. Coxe's valuable dispensatory under the article piper, that Dr. Frank, physician to her majesty Maria Louisa, recommends the black pepper, in different species of intermittent fevers. This had previously been used in the east with success after every known means had been ineffectually tried. The dose is five to ten grains twice a day, and Dr. Ghigini reports ten cases cured with it. Dr. Frank mentions seventy patients who came under his notice between April and June, of whom fifty-two had tertian, ten quotidian, and eight the quartan fever. Fifty-four were completely cured within about a week, without any subsequent relapse. He dips the seeds of the black pepper in a mucilage of gum Arabic and subsequently in powdered colomba to disguise it, and gives from five to eight pills twice a day. None of his patients required more than from seventy to eighty pills for a complete cure. Dr. Frank recommends the profession to try the extract of black pepper in intermittent fevers. This preparation was tried on nine individuals affected with intermittent fevers of different types in doses of four, eight, ten, or twelve grains dissolved in water in some cases, and given in the form of pills in others, by Dr. Clock, of Trent, and the effects surpassed his warmest expectations.

From these experiments it is concluded, that the extract of pepper is not only one of the best succedaneums for the bark, but that it is even preferable to it on several accounts:—1st. It never produces disturbance in the stomach or bowels—2d. It never failed in producing a cure—3d. Those who were cured did not in any one instance experience a relapse—4th. It produces a regular alvine discharge, as well as the excretion of urine and sweat—5th. None of those who were cured experienced that sensation of languor, so common to a state of convalescence.*

In the Bulletin des Sciences Medicales for April, 1826, there is an account of three cases treated with piperine, by Dr. S. Go[illegible]doni, physician to the hospital at Leghorn. The first case was one of double tertian intermittent fever, which for a long time resisted the use of quinine, and although this remedy eventually arrested the paroxysms, whenever it was discontinued the disease returned; the piperine was then resorted to, and the fever ceased on the first day, and did not return. The second and third were also cases of intermittent fever, they were promptly cured by the piperine. From these, and many other cases, Dr. Gordoni infers that the piperine will cure fevers that resist the sulphate of quinine, and that it will prevent a relapse better than this latter remedy.

---

* Giornale de Chirurgia Practica.

Dr. Meli has also employed the piperine with success, and considers it a more certain remedy in intermittent fever than the sulphate of quinine.*

Dr. J. S. Rose, who was the first to use the piperine in this city, informs me that he has employed the piperine which I prepared, in twenty cases of intermittent and remittent fevers, and that he is decidedly of opinion that it will be found to be a more certain and efficient remedy than any preparation of bark heretofore used.

"I have also used it," he adds, "in two cases of low nervous fever, or typhus. I was induced to employ it in these cases, from observing that in intermittent it did not prevent all the stages of the paroxysm. At the time the patient expected his chill, he found a gentle diaphoresis, which continued to increase for two, three, and in some cases for four hours; on the next day, however, (of the expected return,) there was nothing like diaphoresis or fever, the patient passed this period without the least inconvenience, and remained exempt from a relapse, which is not always the case after the use of quinine. These facts led me to believe, that in typhus, when we wish a stimulating diaphoretic, no remedy is preferable for that purpose to the piperine, not even volatile alkali. In this form of febrile action when the animal powers are about to yield to the influence of disease, and the patient fall a victim to the timidity of the practitioner, I have boldly withheld all other remedies, and administered the piperine in doses of two grains every two hours until eight grains had been taken, the low muttering delirium now began to subside, the skin became moist, and the patient sensible of his improvement expressed himself better. On the following day, the same doses were administered, and repeated for three, four, or five days, when I found no fever, the strength increased, and the patient with an inclination for food, and convalescent."

The piperine has also been used by Dr. J. G. Rousseau of this city, in a few cases, in all of which it has been successful. He has favoured me with the following cases which are interesting, as it shows the necessity of caution in prescribing the remedy in large doses.

"A young girl, about twelve years of age, having had a return of an intermittent fever that had been stopped by the sulphate of quinine, was directed to take one grain of the piperine, made into a pill with conserve of roses. She was a short time after seized with a vomiting, which was repeated to the number of [illegible] times in the space of two hours. It then began to promote alvine evacuations to the extent of twelve or fifteen times. The fever did not return, and she was directed to continue one grain of the medicine night and morning It invariably produced alvine discharges in an unusual quantity.

---

* Ainslie's Materia Indica, Vol. II. p. 622.

"In another case, a subject of about forty, it produced a radical cure in the dose of three grains in twenty-four hours, continued for several days after And it is so much the more remarkable as this patient had taken the sulphate of quinine for some days in the quantity of thirty grains every twenty-four hours, as he informed me, remarking at the same time, that during the use of it he was under a most violent and painful state of excitement."

I have just received the following case from my friend Dr. J. R. Black, of Philadelphia: it affords additional testimony of the powers of the piperine in the cure of intermittent fever.

"Mr. S. aged about forty years, during the first part of last month, applied with a severe quotidian fever, attended with rejections from the stomach, and with violent pain and great determination of blood to the head, during the hot stage, with cold feet and slight delirium.

"The case was treated with the lancet, emetics and purges, which, on the third day, changed its type to the tertian. On the day of intermission sulphate of quinine was administered, which was often rejected, while it always increased the patient's nausea and head-ache. Piperine, (prepared by Mr. Carpenter,) was substituted in doses of one grain every hour to the number of ten a day. The paroxysms immediately ceased, and the patient in a few days was discharged radically cured: J. R. B."

Many other cases might be quoted, in which this medicine has been employed with equally happy results, but enough has been advanced to satisfy the most sceptical of its active properties.

Alcohol and sulphuric æther are the best menstrua for the active properties of the pepper, which very soon imparts its acrimony to these fluids. Mr. Brande gives alcohol and water. I am surprised he should have omitted æther, since it is the most powerful solvent, and particularly, that he should quote water, as it requires five hundred and fifty pints to extract the sapidity of ℔j. of pepper. Water indeed appears to rank lowest as a solvent of the active part of the pepper, while it is the best solvent of the colouring matter, for after the pepper has been exhausted of its sapidity by æther and alcohol, water will make a deep-coloured solution, which, on evaporation, will produce a dark extract, possessing little of the pungency of the pepper.

The piperine employed in the above cases I prepared according to the following formula:—

Digest one pound of coarsely powdered black pepper in one gallon of alcohol for ten days, distil off one-half of the alcohol in a water bath, add by degrees diluted muriatic acid to hold in solution the piperine, then add water sufficient to precipitate the resin and separate the oil, a muriate of piperine remaining in solution, concentrate this solution by evaporation, and add pure potass to decompose it, and neutralize the acid, when the piperine, in consequence of the diluted state of the alcohol, and the absence of the muriatic acid, will be deposited in yellowish transparent crystals—the crystals may be obtained perfectly colourless, by carefully separating the oil and resin, but as there is no disadvantage in the colour, the additional trouble and expense would not be compensated. The piperine in a colourless state is insipid and inodorous, but united with as much resin as enters into its crystallization, its taste is extremely hot, possessing in an intense degree all the pungency of the pepper, with a considerable portion of its odour, and I think, is more active than the former; it was in this form exhibited in the treatment of the cases above described.

The crystals were perfectly transparent, tetrahedral prisms, with oblique summits of a straw colour, and as large as the ordinary crystals of sulphate of magnesia.

Extract of Black Pepper.—Digest eight ounces of black pepper coarsely ground, in four pints of diluted alcohol for four days, occasionally submitting it to a temperature near ebullition in a water bath, filter and evaporate to the consistence of an extract.

This is found also to be an active remedy in intermittents in doses of two or three grains. In a soft state it has proved very convenient to give consistency to piperine and quinine for the formation of pills, while at the same time it increases their activity, (particularly that of the latter.) It is certainly preferable to conserve of roses or gum Arabic, as they enlarge the pill without increasing its effect.

The extract of pepper, in every formula I have seen, has been directed to be prepared with water. This forms a much less active preparation, and possesses several inconveniences, to which the former is not subject.

I have used both the white and black peppers in the above preparations, and although it is stated by most authors that the white is milder than the black, I have found it to yield more piperine, and an extract of much more acrimony and activity, and to contain much less colouring matter.

The constituent principles of pepper are piperine, oil, resin, fecula and colouring matter.

The oil of black pepper is a most powerful article, and has not as yet been employed in medicine, it may prove a valuable stimulant.

The several preparations above described may be procured of Charles Marshall, Druggist, No. 221, Market street. Philadelphia.

Art. VIII. *Medical Statistics: being a Series of Tables, showing the Mortality in Philadelphia, and its immediate Causes, during a period of twenty years.* By Gouverneur Emerson, M. D.

In the investigation of human affairs, and the various circumstances which relate to and govern them, statistical calculations, by giving distinctness to views, and accuracy to conclusions, have been found eminently useful. Applied to subjects connected with medicine, at present the most uncertain of the sciences, they may prove of essential service, especially to the branch of public hygiene, as by demonstrating the existence of evils they may lead to a removal of their causes, and serve as a test by which to determine the success or inefficacy of the measures resorted to for that purpose. They may likewise become useful as a means of estimating the comparative value of those systems of medicine, which from time to time succeed each other. Indeed, such an application of medical statistics has already been made in Europe; but the warmth and obstinacy which at this time, distinguish the doctrinal controversies of rival sects, may justly be considered as productive for the most part, of partial views and suspicious conclusions. Estimates upon these subjects should therefore be received with much caution, unless when made by such as are known to owe neither allegiance to, nor bias for, a particular party, or who possess so rare a degree of candour, as to enable them to state facts without partiality or concealment.

The following calculations were projected for the support of no preconceived speculations or opinions, but undertaken solely for the purpose of ascertaining those results which naturally flow from them. Many of these will be found extremely interesting, especially such as relate to the comparative mortality of different diseases, the ages at which they most frequently prove fatal, and the mean duration of human life at this epoch in Philadelphia.

Many places possess certain peculiarities, capable of exerting more or less influence upon calculations of this nature, and which can only be well understood by persons very familiar with them. For this reason it has been thought most adviseable to avoid making formal comparisons with the statements of other cities, and to confine the sphere of observation in the present article, altogether to the locality of Philadelphia, a compendious history of the mortality, with observations upon many of the diseases of which, will be found in the following tables, since the year when the subject was first made one of regular record. The date of this interesting event extends no further back than the year 1807, when through the influence and exertions of Professor James, the first authentic bill of mortality, for the city and suburbs of Philadelphia, was formed and published. No interruption has since taken place in these annual reports, which from time to time have had new interest imparted to them, by the addition of other particulars; such, for example, as the distinction made between males and females, the designation of colour in the deceased, and the account of births.

The authenticity of the Philadelphia bills of mortality may be regarded as resting upon very solid grounds. From authority vested in the Board of Health, this municipal power makes it obligatory upon physicians to give certificates designating the name, age, and sex of all who die under their care, and sextons are bound by still heavier penalties, not to permit the interment of any dead body, until such certificate is obtained, which he returns to the health office on the last day of every week, for publication.

The accuracy with which the diseases are designated in these certificates rests chiefly upon the general intelligence of the medical profession in this city, the members of which are very much in the practice of testing their pathological opinions by autopsical examinations. Further evidences of fidelity in this respect are afforded by the general agreement of the different bills of mortality with each other, and the variations exhibited by certain diseases in correspondence with the influence of well known agents. That many errors, and much vagueness exist in regard to particular details, must be evident to every one well versed in the medical science of the present day. The heads of debility, decay, atrophy, marasmus, consumption, (as an infantile disease,) may be cited as affording the most frequent examples of misrepresentation, but still, the correspondence subsisting between the annual returns, is sufficient to show that the affections even thus reported depend upon the continued operation of some uniform causes.

For the purpose of ascertaining the number born, the various practitioners of midwifery are required to render an account at the Health Office of all births. With regard however to this department, there is some reason to suspect a deficiency in the returns, especially from the outskirts of the city and liberties. But the registry of the dead has, for the most part, been kept with a care and fidelity creditable to those who have had its superintendence, and especially to the present clerk, who, for the last ten years, has conducted its details.

General Observations on the Topography and Climate of Philadel-

phia.—The city of Philadelphia lies in north latitude 38° 57′, and longitude 1° 54′ east from Washington.* It is situated on the western shore of the river Delaware, and extends over slightly elevated ground about two miles to the banks of the river Schuylkill, five miles above its confluence with the Delaware. The last named river is about a mile wide at the town, and has sufficient depth of water to admit ships of a very large burthen, whilst the Schuylkill, on the other side, is navigable for sea vessels of moderate draught. The tide in the Delaware rises, on an average, to the perpendicular height of about seven feet. The water continues fresh for more than fifty miles below the city. Its distance from the Atlantic ocean, by the natural course of the river and bay, is about one hundred and twenty miles, but not more than fifty-five miles by a direct line in an easterly direction.

The portion of the isthmus on which the town stands, is of the tertiary formation, consisting of sand and gravel, for the most part overlaid with a thick stratum of clay, the whole resting upon a primitive basis. That it was once covered by the sea, is clearly shown by the marine deposits, consisting of bones, teeth, shells, &c. found below the natural surface. Vegetable relics have likewise been met with. A few years since hickory nuts were discovered in digging a well at a depth of more than 30 feet. In one of the highest points of the city plot, the trunk of a buttonwood (Platanus occidentalis) was found imbedded in a black mud, and surrounded by acorns and leaves.

By digging at various depths, water is easily obtained in every part of the city and suburbs. Near the river it may be procured within ten or twelve feet of the surface; its depth in other parts is usually about thirty feet. Its qualities were excellent before the city became so populous, and its sources were contaminated by infiltrations. At present, an abundant supply of most wholesome and palatable water has been introduced from the Schuylkill.

The climate of Philadelphia, appears to have partaken in the change which of late years has been noticed in most parts of the country. This variation is most strikingly manifested as respects the intensity and duration of the cold weather. It has been observed, that during the last century, the winters were more uniformly cold and the rivers more completely and for a longer time obstructed, than at present, when it often happens that the ice does not become stationary on the Delaware through the whole season, and when it does become fixed, seldom remains so longer than a few days. We find it recorded that in 1704, snow fell three feet deep, and in the winter of 1779-80, the Delaware continued frozen for three months. Moreover, that in 1764, 1791 and 1797, this river was completely frozen in one night, so as to be passable the next day. Instances of such intense cold have not occurred within the present century.*

---

* Or 75° 8′ 45″ west from Greenwich.

From an examination of the records of the *Rain Gage*, kept at the Health Office, in a central part of the city, it appears that, from March 1820 to February 1827, inclusive, a period of seven years, the average quantity of rain for the seasons is as follows: For the three months of Spring 8.29 inches—Summer 9.54 inches—Autumn 10.54 inches—Winter 8.15 inches.

The greatest quantity which fell during that time, in the twenty-four hours, was four inches on the 3d of October, 1820. The largest quantity in forty-eight hours was 5.65 inches, on the 3d and 4th of the same month, in the same year.

The prevailing winds throughout the year are from the westward. Viewed according to the seasons, it may be observed, that in the Spring and Fall, the winds are more variable than during the rest of the year. Their tendency in the Spring and Summer, is more from the eastward than at other seasons. During Summer they usually come from the westward and southward, but in winter from the westward and northward. When easternly winds prevail, they generally proceed from a northernly direction. Cloudy and rainy weather are their common attendants, the weather usually clearing away by their shifting first to the southward, and then to the west or northwest, from which points they often blow with great violence.

Observations on the Tables.†

TABLE I.

This table presents a series of observations made on the climate of Philadelphia, during ten years, viz.: from 1811 to 1820, inclusive; showing the changes of temperature indicated by Fahrenheit's thermometer for each month, and season of that period. It is formed from

---

[*] For more minute information relative to the temperature of the weather in particular months and seasons, see Table I.

[†] These are by no means intended to embrace all the views worthy of notice which the tables develope, and doubtless many more of equal, and perhaps greater interest will present themselves to others who examine them.

observations originally published in the Eclectic Repertory, and though not continued to so late a date as would have been desirable, still on account of the regularity and accuracy with which they were conducted, we have chosen them in preference to any more recent ones with which we are acquainted. From these observations, it appears that the mean temperature of the months estimated from an average of ten years is, for January, 30°—February, 32°—March 48°—April, 50°—May, 59°—June, 71°—July, 75°—August, 72°—September, 65°—October, 55°—November, 46°—December, 34°.

The average mean temperature of the seasons is as follows, viz. The three months of Spring, 50°—Summer, 73°—Autumn, 55°—Winter, 32°.

The lowest fall in the thermometer observed in the above mentioned period at eight o'clock, A. M. was 4° above zero, on the 15th of February, 1817. The highest rise in the same time at three o'clock, P. M. 97° on the 12th of June, 1818.*

TABLE II.

Is an abstract from the census of the city and county of Philadelphia, taken in 1820, by order of the general government, showing the number and description of inhabitants in the wards and districts, from which returns of interments are made.

The observations we shall offer upon this subject, will be directed in the first place to the white population.

In this the proportion of the sexes is as 111 females to 100 males, a disparity which has been attributed for the most part to the greater risks of life encountered by the male sex in their various occupations and pursuits.† In proof of this we find from an examination of the table that the number of males under ten years of age exceeds that of the females; but when the estimate is continued so as to embrace the sixteenth year, the balance is considerably in favour of the females, the males having in the mean time been reduced by the operation of the above mentioned circumstances.

---

* It is to be regretted that the Philadelphia bills of mortality furnish no precise data, by which a table can be formed, to show the deaths per month by the *principal diseases*, and thus exhibit the immediate influence of the seasons upon their mortality. Interesting calculations made for other places show that chronic complaints are not much affected by such influence, which is chiefly displayed upon the acute forms of disease.

† The average proportion for the whole United States, is, however, very different; namely, 97 females to 100 males. In the new States, the excess of males among the children is observed to be very great. In Alabama, Illinois, Missouri, Mississippi and Indiana, all of which have been lately settled, there are 76,067 boys, and only 70,033 girls under ten years of age; that is, at the rate of 100 boys to 92 girls.

The relative proportion existing between the sexes under ten years of age, is about 3.3 per cent. in favour of the males; but when the estimate is made to include those under the sixteenth year, the females are found to be the most numerous in the proportion of 2.4 per cent.

The females under the 26th year exceed the males under the same age, in the ratio of 8.8 per cent. Under the 45th year, the excess of females is 9.1 per cent., or as 100 females to about 90.9 males; whilst the excess of females of and beyond this age is nearly 26 per cent., or at the rate of 100 women to only 74 men.

With regard to the *black* population, an estimate of all ages shows the relative proportion of the sexes to be 100 females to 71 males. Under the 14th year, the proportion is equal, but when the estimate is extended so as to include all under the 26th year, the females exceed the males 30 per cent.; that is, at the rate of 100 females to 70 males. Reckoning all under 45, the excess of females is 28 per cent., or as 100 to 72; but in the amount of the sexes of 45 years and upwards, the number of females exceeds that of the males nearly 31 per cent.; that is, for every 100 women there are only 69 men.

The following statement affords a condensed comparative view of the proportion of the sexes at various periods of life:—

	WHITES.	BLACKS.
Under 10*	100 males to 96.7 females.	
Under 14		100 females to 100 males.
Under 16	100 females to 97.6 males.	
Under 26	100 do. to 91.2 do.	100 do. to 70 do.
Under 45	100 do. to 90.9 do.	100 do. to 72 do.
Of 45 and upwards	100 do. to 74 do.	100 do. to 69 do.
Proportion of all ages*	100 do. to 89 do.	100 do. to 71 do.

The number of whites of and over 26, is 39,335 } Being in the proportion of 56
under 26, 70,050 } of and over 26, to 100 under that age.

The number of blacks of and over 26, is 5,191 } Or, as 84, of and over 26, to
under 26, 6,193 } 100 under that age.

The number of whites of and over 45, is 12,739 } Or, as 13.3 of and over 45, to
under 45, 96,646 } 100 under that age.

The number of blacks of and over 45, is 1,381 } Or, as 13.1, of and over 45, to
under 45, 10,003 } 100 under 45.

---

* The blacks under 10 and 16, and the whites under 14, are not designated the table.

TABLE III.

This table exhibits the number of deaths in the city and suburbs of Philadelphia, for each one of a series of twenty years, viz: from January 1st, 1807, to January 1st, 1827, inclusive; showing at the same time those which occurred from the most prevailing diseases.

From the amount of every year, as represented in this table, the number reported in the bills of mortality under the head of *still-born*, are excluded, as never having possessed a proper existence; a rule applicable to all the subsequent statements unless otherwise specified. Their numbers appear in a separate column, and it may be well to remark here, that in the public records of Philadelphia, no discrimination is made between the abortions of the first months of gestation, and the premature and dead-born of the latter periods, which, with perhaps a very few exceptions, are disposed of in the numerous burying grounds throughout the city and suburbs, and reported with other interments at the Health Office. That the bills of mortality may in future show the proper distinctions to be made under this head, it would be well for the Board of Health to issue suitable instructions. Until some regulation for this purpose is adopted, the large numbers of still-born reported may serve, at least with superficial observers, to cast a shade of reproach upon the females and medical profession in Philadelphia.

The highest number of deaths for one year, contained in the series, is 4372, in 1823; the lowest number is 1884, in 1809. The amount for the first ten years of the series is 20,585; for the remaining ten years 32,419. The total number of deaths for the whole time is 53,004.

The prevalence and fatality of particular diseases in different years, is strikingly exemplified in this table. Under the head of *Diseases of the Lungs*, the variation from year to year is chiefly observable in the column of *Acute affections;* whilst the annual proportion from *Consumption* seems to have advanced at a steady step with the progress of population. The highest number of deaths by this disease in one year is 587, reported in 1826; the lowest number 316, in 1813. The whole mortality by consumption in twenty years, is 7977.

Under the head of *Acute Diseases of the Lungs*, the deaths reported in the bills of mortality under the various titles of Pleurisy, Inflammation of the Lungs, Breast and Chest, are included. The greatest mortality for one year exhibited in this column, is 222, in 1826; the lowest 61, in 1813. The number for the whole series, is 2284; which, added to the amount from consumption, gives a grand total of 10,281 deaths in twenty years from *Diseases of the Lungs.*

Under the head of *Fevers*, which in this table includes only those of most frequent prevalence, striking fluctuations are observable in all the columns. That which contains the totals, shows a steady increase with the progress of time and population, until the year 1818, when the amount rises to 492, chiefly produced by the prevalence of a bilious fever, of a typhoid and highly mortal character, almost exclusively confined to the blacks inhabiting the narrow streets, courts and alleys of the south-western parts of the city and suburbs.* The still greater increase observable in the succeeding years, until the amount in 1823, is no less than 744, depends upon causes of an entirely different nature, which, as they have seldom or never been known to exist to the same extent before in this city and its vicinity, must be regarded as constituting an extraordinary and casual event.† The bill of mortality for the year 1820, was the first that swelled from the effects of this epidemic, which spread throughout the neighbouring country on all sides, and encroached upon the outskirts of the town, but rarely showed its influence upon the interior parts. Indeed, as I formerly stated in noticing the same subject, it was curious to observe how accurately the invasions of the sickly air during the summer and fall months, were limited by the pavements. few or none of those who kept within them, having been affected with what acquired the popular designation of *Country Fever.*‡ Strange as it may appear, the atmosphere of the city proper was seldom more free from the *causes* of disease, than during the years wherein the bills of mortality exhibited the greatest number of deaths. With the view of ascertaining as far as practicable, the comparative healthiness or unhealthiness of the city and suburbs, the Board of Health issued, in 1823, circulars to the physicians, requesting them to note in their usual certificates of mortality, the districts in which their deceased patients had resided. This measure, though adopted late in the season, clearly proved that the proportion of interments was as anticipated, much smaller for the city than for the suburbs, as the following short statement will clearly show.

The number of interments reported at the Health Office, were from—

---

* For a particular description of this singular epidemic, see the Philadelphia Journal of the Medical and Physical Sciences, vol. 3. p. 193.

† The fatality of this epidemic may in some measure be judged of, by comparing the sum of the first ten years of the series of totals in the column of Fevers, viz: 1540, with that of the last ten years, which is 4580!

‡ See the Philadelphia Journal of the Medical and Physical Sciences, vol. 5. p. 14[illegible]

August 9th to the 16th - -	130	Of which there were from the city	53
16th to the 23d - -	113	do.	48
23d to the 30th - -	129	do.	50
30th to Sept. 6th - -	112	do.	45
Sept. 6th to the 13th - -	137	do.	63
13th to the 20th - -	115	do.	15
	736		274

In the two hundred and seventy-four deaths reported from the city, sixty-five, or more than a fourth were from the Alms-house, which at that time was crowded with paupers, chiefly from the suburbs.

Cases of the prevailing remittent and intermittent fevers, were however, to be met with in all parts of the city proper, but their origin could nearly always be traced directly to the air of the country or outskirts of the town, a short exposure to which in the evening or night was sufficient to give rise to those diseases.

In the column designating the deaths by typhus, we observe that the epidemic seems to have terminated in that form more frequently in 1823 and 1824, than in other years. It is to be regretted that so many instances are reported, wherein the type is left undesignated. as for example, in 1823, where the particular character of two hundred and forty-three cases of fever which terminated fatally in that year cannot be ascertained.

We are happy in being able to state that at this time, the sources of the disease appear exhausted, as the present season has proved unusually healthy. This we have it in our power to demonstrate very clearly, by a reference to the records of the Philadelphia Dispensary, from which we make the following estimates of the number of applicants, to that institution for medical relief in several years, during the month of August, the most sickly of the season.

Years.	1823.	1824.	1825.	1826.	1827.
Patients.	694	347	363	510	264

The column showing the deaths by *yellow or malignant fever*, presents the highly interesting fact, that for the last twenty years, the whole mortality amounts to only one hundred and twenty-two, of which number seventy-three occurred in 1820. This statement will perhaps excite no little surprise at home, and doubtless be greatly dis credited abroad, but may nevertheless be relied upon as correct. That the amount should appear to most persons less than they would expect, is probably owing to the high degree of alarm which usually attends the appearance of a single case of yellow or malignant fever, and magnifies the occurrence, by association with former epidemics, to a fearful extent.

The column of *totals* under the head of *Inflammations*, shows a steady increase in the phlegmasiæ, with that of population, the variation in the whole series running between four hundred and forty-seven, in 1826, the highest extreme, and one hundred and thirty-eight in 1809, the lowest number. The amount for the whole series is four thousand seven hundred and fifty-eight.

Of *Inflammation of the Brain*, the greatest number of deaths reported for any year, is sixty-six in 1824. The lowest eight, in 1813. The whole amount for twenty years is five hundred and eighty-three.

As might be expected, the fluctuation is much greater in the column of inflammations of the *Lungs and Chest*. The highest number of these is two hundred and twenty-two, opposite the year 1826. The lowest, sixty-one, in 1813. The amount for the whole series is two thousand two hundred and eighty-four.

No very great variation is observable in the column embracing inflammation of the *Stomach, Bowels and Peritoneum*, the highest number of which for any one year is one hundred and nineteen, in 1824; the lowest twenty-nine, in 1807. The whole number for the twenty years is one thousand two hundred and ninety-one.

Of inflammations of the *Liver*, the highest amount is fifty-four, in 1826; the lowest nine, in 1807. Total for the whole series, five hundred and eighteen.

With regard to the columns representing the deaths by other phlegmasiæ, such as inflammation of the *Heart*, *Pericardium*, *Spleen*, &c. there is little worthy of observation, except, that as these are not to be found in the early bills of mortality, they must either have become more frequent of late years, or been designated with greater care.

In the column of totals, under the head of *Dropsies*, the sums vary between two hundred and seventy, in 1825, the highest extreme, and ninety-eight, in 1813, the lowest number. The whole amount for the series is three thousand four hundred and seventy-four.

The greatest number per annum of *Hydrocephalus*, is one hundred and forty-seven, opposite the year 1825; the lowest thirty-eight in 1813. The whole amount of the series is one thousand six hundred and two.

The column of *Dropsy of the Chest*, presents a greater annual fluctuation than any other under the general head, varying between the extremes of forty-seven in 1823, and five in 1818. The amount of the whole series is five hundred and twenty-one.

The *undesignated dropsical* affections reported annually, consist, with perhaps very few exceptions of *Anasarca* and *Ascites*. They vary between one hundred and thirty-one, in 1819, the highest, and thirty-five, in 1814, the lowest number.. The whole series amounts to one thousand three hundred and fifty-one.

Under the head of *Bowel Complaints*, great variation is conspicuous in all the columns. In that containing the annual totals, the highest number is five hundred and sixty-two, opposite the year 1823. The lowest, one hundred and fifty-three in 1816. The amount of the whole series is six thousand two hundred and eighty-nine. The fact that much the highest number of deaths from these affections occurred during the greatest prevalence of the epidemic remittent and intermittent fevers, shows how much all these diseases depend upon the same kind of atmospheric constitution.

In the column containing the deaths per annum of *Cholera*, the sums vary considerably, the highest number being two hundred and sixty-five, in 1823, and the lowest ninety, in 1816. The whole series amounts to the formidable sum of three thousand eight hundred and twelve.

The annual reports of deaths from *Diarrhœa and Dysentery*, are so nearly alike in respect to numbers, that they have both been placed in the same column, the different sums of which vary almost as much as those of cholera. The highest number is two hundred and ninety-seven, in 1823; the lowest forty-four, in 1812. The whole amount for the twenty years, is two thousand four hundred and seventy-seven. making, when added to those from cholera, the total amount of deaths from *Bowel Complaints*, six thousand two hundred and eighty-nine.

The number of deaths reported annually under the head of *Convulsions*, seems to have steadily increased with the progress of population. The highest number for one year in the whole series, is three hundred and sixty-eight, in 1824; the lowest one hundred and twenty-seven, in 1807. The amount for the twenty years is three thousand. seven hundred and thirty-one.

Of *Croup*, the greatest mortality per annum is eighty-nine in 1820; the lowest number in the series, twenty. The total amount of deaths in the twenty years. is one thousand and forty-one.

The column showing the deaths by *Hooping Cough*, exhibits great fluctuation. The highest number in a single year, is one hundred and fifty-one, in 1819; the lowest, six. The whole amount in twenty years, is eight hundred and five.

The number of deaths reported from *Measles*, shows, as might be expected, great variations from year to year. In seven years of the series, no deaths were reported from this disease. The highest number is one hundred and fifty-six, in 1823: the lowest, one. The total amount for twenty years, is six hundred and sixty-seven.

With regard to *Small-Pox*, we find, as in the case of measles, seven years out of the twenty, wherein no deaths by it were reported. The greatest mortality in any one year, occurred in 1824, when the number of deaths was three hundred and twenty-five. The next highest number is one hundred and sixty in 1823. The amounts of other years vary from these to only one. The total for the twenty years is one thousand and eighty, the proportion of which is about twenty, out of every thousand deaths by all diseases.

Although the greatest mortality from this loathsome distemper took place at a time when it might have been supposed that few or none remained unprotected, still the amount for so long a period furnishes a pleasing comment upon the experience of former times. It has been estimated, that during the first thirty years of the eighteenth century, the number of deaths from small-pox in London, was seventy-four out of every thousand: and during an equal period at the close of the same century, the amount had increased to nearly one-tenth of the whole mortality. This multiplication has been ascribed to the introduction and practice of inoculation, which, although esteemed one of the greatest improvements ever introduced into the medical art, had, by leading to a more extensive circulation of the contagion, actually promoted the ravages of the disease it was intended to ameliorate. How striking the contrast between these consequences and those resulting from the substitution of vaccination.

Under the head of *Asthma* the sums representing the annual number of deaths vary from twenty-one, in 1825, to four, in 1808. The whole amount of the series is two hundred and five.

The column containing the deaths by *Apoplexy*, though very well filled, is perhaps entitled to many more, since it is highly probable that many reported as sudden, were from this cause. An examination of the table, showing the ages at which the deaths under this last head took place, presents such a correspondence with those which occurred from apoplexy, as almost to confirm the observation

The greatest number recorded under this head for one year is sixty one, in 1825; the lowest seventeen, in 1812. The amount for the whole series is eight hundred.

The numbers in the column headed *Palsy*, vary between forty seven, in 1824, the highest, and ten, in 1810, the lowest annual amount. The total of the whole series is five hundred and forty-eight.

It is gratifying to observe under the head of *Insanity*, that the proportion of deaths by it has not kept pace with the progress of population, since the amount in the last ten years is not even so great as that during the ten preceding. The highest number in any one year is forty-one, in 1818; the lowest thirteen, in 1809. The whole amount for the twenty years, is five hundred and fifteen. It should be observed, that the number of deaths under this head, is probably much beyond the fair proportion to the population of this city, since a very large amount of the patients in the Pennsylvania Hospital, the principal receptacle for the insane within the limits to which our statements are confined, have been brought from a distance.

The head of *Drunkenness*, for various reasons, presents us with but an imperfect criterion whereby to judge of the deplorable extent of the evil. In the first place, many die from diseases induced by this species of intemperance, whose deaths are reported under the name of those diseases. Oftentimes too, the physizian from a regard for the reputation of the deceased or respect for the feelings of the relatives, has been induced to report the death under some other designation, substituting for example the name of a symptom. In this way it happens, that few cases are reported from direct drunkenness except such as occur in the most destitute and abandoned. The deaths by mania a potu, having for the last five years of the series been returned separately, are placed in the column of drunkenness, with their number designated in a maginal note. The whole amount is 558.

Suicide appears to have become less frequent of late, as the amount for the last ten years of the series is only four greater than that for the first ten, notwithstanding the increase of population. The greatest number which occurred in any one year, was thirteen, in 1826. The amount for the twenty years is 102.

Under the head of *Cancer*, a steady increase is manifested, in running down the column. The highest number of deaths reported by it in any one year. is 23, in 1820; the lowest 4, in 1812. The number for the twenty years amounts to 272.

In the column headed *Gravel and Stone*, the diminution of deaths is very obvious and highly gratifying. Whether this is owing to greater exemption from these diseases, increased professional skill, or to both, might afford an interesting subject for inquiry. The greatest number of deaths from these affections recorded for any one year, is five, in 1813. In 1820 and 1822, there are none reported. In 1823, one. The whole number in the twenty years is forty-six, of which only twenty have occurred within the last ten years.

The column headed *Parturition and Childbed*, although it may contain some few deaths by puerperal fever, does not embrace those reported under that title, the number of which will be found in other tables. Considerable fluctuation is observable in the yearly reports of these casualties, the highest number being twelve in 1807. For three years, viz: 1818, 1819, and 1823, no deaths were reported under this head. The whole number for the series is ninety, only thirty-eight of which have occurred within the last ten years. This, supposing all the casualties included except puerperal fever, would imply an improved state of the obstetric art.

The amount of deaths reported annually under the head of *Epilepsy*, varies from eighteen, in 1820, the highest number, to three, in 1813 and 1817, the lowest of the series. The whole amount is one hundred and seventy-five.

TABLE IV.

This table presents a summary of the deaths in Philadelphia for each month in a series of twenty years, with the number of adults and children designated. In the number of the latter, the still-born are included according to the usage of the Board of Health in their annual reports, it having been found impracticable to make an accurate monthly estimate of them for deduction. The nearest approach we can probably make to their numbers, is by reckoning them at about five per cent. of the sums stated for children, that being an average proportion for ten years.

Estimating the deaths in the whole series for the different seasons, we obtain the following results, viz:

	Adults.	Children
In March, April and May,	7229	5264
June, July, and August,	7606	9462
September, October, and November,	7545	6369
December, January, and February,	6909	5153

The months according to the mortality of both adults and children.

stand thus, beginning with the highest:—1st, August; 2d, July; 3d, September; 4th, October; 5th, June; 6th, March; 7th, April; 8th, November; 9th, January; 10th December; 11th, May; 12th, February.

Arranged according to the greatest mortality of *adults* alone, they take the following order:—1st, August; 2d, September; 3d, October; 4th, April; 5th, March; 6th, July; 7th, January; 8th, November; 9th, June; 10th, February; 11th, December; 12th, May.

According to the greatest mortality of *children*, thus:—1st, August; 2d, July; 3d, September; 4th, June; 5th, October; 6th, March; 7th, November; 8th, December; 9th, January; 10th, April; 11th, May; 12th, February.

It is interesting to compare one of the results presented by this table, with calculations made in England, where the proportion of old persons who die during cold weather to those who die during the warm season, has been estimated at 7 to 4. The whole number of deaths of all ages is greatest in the months of January, February and March; and least in June, July, and August; which, it will be seen, is widely different from what takes place in this part of America. The results in both countries are, however, at variance with the observations of CELSUS, who, in treating upon the comparative salubrity of the different seasons in his time and country, says:—"Saluberrimum ver est; proxime deinde ab hoc hiems; periculosior æstas, autumnus longe periculosissimus."

TABLE V.

This table shows the ages at which the deaths from particular diseases occurred. The titles of the diseases have been copied from the bills of mortality. A few of them designating accidents and affections of a vague character are omitted, as tending rather to perplex than to elucidate the subject. The alphabetical arrangement has been adopted as the most convenient.

Abscess, is the first affection which presents itself, but the particular kinds are left undesignated. The deaths were common to all ages, and it may be surmised, that most of those set down under the twentieth year were of a scrofulous character.

In the number of deaths reported as by *Angina Pectoris*, we are inclined to attribute those included under the first year to that kind of syncope or asphyxia sometimes affecting infants at birth, and a few days afterwards, the pathology of which differs essentially from that of angina pectoris common to more advanced life.

The deaths from *Asthma*, were most numerous after the age of puberty, and especially so between the 60th and 80th years.

The greatest number of deaths by *Cancer* and *Scirrhus* occurred between the ages of 40 and 50.

Of *Consumption*, the greatest mortality appears between the 30th and 40th years.

Dropsy of the Brain, exhibits the highest amount of deaths under the first year. Dropsy of the *Chest*, between the 40th and 50th years, and Dropsies of kinds not designated, (chiefly *Anasarca* and *Ascites*,) between the 30th and 50th years.

Of *Epilepsy*, most of the deaths reported, are included between the period of puberty and the 60th year.

Scarlet Fever, appears to have been chiefly fatal between the 2d and 20th years. *Fevers*, of other descriptions, exhibit the greatest mortality between the ages of 20 and 50.

Of *Gravel and Stone*, most of the deaths are included between the 40th and 90th years.

Of *Hæmorrhages*, the mortality is much the greatest between the 20th and 50th years.

Of *Insanity*, most of the deaths occurred between 30 and 40.

Of *Inflammation of the Brain*, the deaths were most numerous from early infancy to the age of 40. Of Inflammation of the *Lungs and Chest*, the highest number appears under the first year, but of the deaths which occurred from this form of inflammation in the latter stages of life, the greatest amount is between 30 and 40. From puberty however, to the most advanced age, the mortality appears to have maintained a regular ratio to the population. Of inflammation of the *Stomach and Bowels*, the deaths appear to have been much more common to the early stages of life, the highest number being under one year, and next greatest between the 20th and 30th years. Of inflammation of the *Liver*, most deaths are recorded between the 20th and 60th years. Of inflammation of the *Bladder*, between the 50th and 60th years. Of *Erysipelatous Inflammation*, much the greatest number of deaths are reported under the first year, and of those which occurred after the age of puberty, the most were between the 30th and 50th years.

The highest number of deaths by *Palsy*, appears between the 60th and 70th years, and nearly four-fifths of the whole amount reported, are in the period between the 40th and 90th years.

Most of the deaths from *Rheumatism*, occurred between the ages of 30 and 50.

The number of deaths from *Scrofula*, is nearly the same at every period under the 30th year, but after this age the proportion is quite small.

The deaths from *Small-pox*, were most numerous between the ages of 20 and 30, and nearly equally so under the first year. Some occurred even so late as the 70th and 80th years.

Under the head *Sudden*, most of the deaths, especially among infants, were probably occasioned by affections of obscure pathology. In very many instances, apoplexy has doubtless been reported under this title, more particularly when it has happened that the subject was not seen by a physician previous to death.

TABLE VI.

The whole number of deaths reported in the Philadelphia bills of mortality from Jan. 1st, 1807, to Jan. 1st, 1827, still-born excluded, is fifty-three thousand and four.

This table exhibits the proportion of deaths by each of the most frequent diseases to the whole number of deaths. Its objects are so very perspicuous as to require neither explanation nor comment to make it understood.

TABLE VII.

This table shows the annual number of deaths of children, reckoning as such all under the twentieth year, according to the usage of the Board of Health.

Except a few remarks relative to *bowel complaints*, we shall leave comments upon this interesting table to others.

The number of deaths reported from *cholera*, the most fatal in the list, will be found varying considerably from year to year. The highest for any one year is two hundred and fifty-three, in 1823. The whole amount for the twenty years is three thousand six hundred and thirty-nine. The influence of the epidemic agents, which, for the last seven years have been so unusually active, is very perceptible in this column.

The last observation is likewise applicable to the deaths from *diarrhœa and dysentery*, the whole number of which for the series is one thousand three hundred and seventy-three, making the total amount of deaths under puberty, from bowel complaints of all kinds, five thousand and twelve.

TABLE VIII.

This table shows the deaths from diseases most incident to the early stages of life, with the proportion by each particular disease, to the whole number of deaths under the age of puberty. To render the subject more distinct the diseases are arranged according to their mortality.

Bowel complaints, as the most destructive, stand first in this order. Of these about two-thirds are under the general designation of *cholera*, nearly all of which were doubtless entitled to the specific appellation of *cholera infantum*, a disease almost peculiar to the United States, in many parts of which it exists endemically under the common name of *summer complaint*. Of three thousand eight hundred and twelve, the whole amount of deaths reported from cholera, adults and children inclusive, three thousand six hundred and thirty-nine were under the age of puberty, and three thousand five hundred and seventy-six under the fifth year, viz. two thousand one hundred and twenty-two under the first year, one thousand one hundred and eighty-six between the first and second years, and only two hundred and sixty-eight over the second year. As this affection seldom attacks those beyond the fifth year, the balance of two hundred and thirty-six between the amount at that period and the total at all ages may be considered as *cholera morbus*.

The proportion of deaths by cholera, to the whole number under the twentieth year, is 1 in 6.3; of diarrhœa and dysentery, 1 in 16.8; and of all kinds of bowel complaints as 1 in 4.6.[*]

The mortality of infants from *Convulsions* is truly appalling, and for the whole twenty years amounts to three thousand three hundred and fifty-three, nearly a seventh part of the whole number of deaths under puberty. Of this sum, two thousand five hundred and fifty-six were under the first year, leaving a balance of only seven hundred and ninety-seven for the remaining nineteen years.[†]

[*] There are many reasons for believing that *cholera infantum* originates from a species of malaria similar to that giving rise to intermittent and remittent fevers and dysentery, in subjects of more advanced life, but modified by the age and peculiar circumstances, incident to the city, a removal from which to the country generally acts like a specific in curing this affection. It may be further observed with regard to the numerous deaths among infants by this and other bowel complaints, that they are generally confined to the offspring of the poor, and especially prevail among the blacks. Indeed, deaths by cholera infantum rarely happen in houses with large and well aired apartments.

[†] The justly celebrated Tissot, in his *Avis au Peuple*, published at Paris towards the close of the eighteenth century, introduces some very excellent remarks relative to the convulsions of infants, which he regards as almost always induced by some other ailment or disease, especially from the retention of the meconium, the presence of acidities, or crude and indigestible substances in the bowels, teething and worms. The great prevalence of these affections in his time, with the obscurity which enveloped them is well ex-

The class of *Phlegmasiæ*, according to our arrangement, stands third in the scale of infantile mortality. The whole amount of deaths from inflammations of all kinds, in the twenty years, is two thousand and eighteen, the proportion of which to the deaths from all other diseases under puberty, is as one to eleven. The largest amount of any one affection is eight hundred and sixty-seven, from inflammation of the *lungs and chest*, being in the proportion of one in twenty-six of the whole amount of deaths under puberty from the phlegmasiæ. Of this amount it will be observed that much the highest number of deaths occurred under the first year. A diminution is apparent between this age and the tenth year, after which it rises again, and continues increasing for some years, as may be seen by reference to Table V.

The next highest number of deaths under this head, is six hundred and twenty, from inflammation of the *stomach and bowels*, the ratio of which to the whole amount of deaths from all infantile diseases, is as one in thirty-seven. Of these, the largest portion happened under the first year.

Inflammation of the *brain* does not appear to have been fatal to those under the first year in the same proportion as the former affections, the sums of the four periods varying but little from each other. The lowest number is between the first and second years. The whole amount for twenty years is three hundred and nineteen, which is more than one-half of all the deaths in twenty years by the same affection, reckoning those of all ages.

With regard to the deaths from *Measles*, which disease occupies the tenth place in our arrangement, much the greatest mortality appears between the first and fifth years, after which indeed but eighty-one deaths out of the whole amount of six hundred and fifty-four occurred.

Of *Small-pox*, the highest number of deaths recorded, is in the period between the second and fifth years. The whole number for the twenty years is six hundred and forty, which is considerably more than half the amount of deaths from this disease at all ages.

Catarrh, seems to have been extremely fatal during the first year of infancy, two hundred and sixty-one deaths having occurred in that time out of four hundred and twenty-one, the amount under puberty for the whole twenty years. This affection, it is probable, neve-

pressed in the following quotation from the above mentioned treatise.—Presque tous les enfans qui meurent avant l'âge d'un an, et même de deux, meurent avec des convulsions, l'on dit qu'ils sont morts de convulsions, et l'on a en partie raison Vol. ii. Chap. xxvii. § 378.

proves fatal, unless when it terminates in engorgement or inflammation of the mucous membrane of the lungs, or other portions of the contents of the chest.

The deaths from *atrophy, tabes, and marasmus*, have been all placed under the same head, as depending frequently upon the same causes, and often confounded together. The highest number is under the first year, namely, during the period of lactation.

Sore Throat is a title so very indefinite that we shall pass it without comment.

In regard to most of the remaining diseases, the deaths from which are reported in this table, no observations occur to us which it would not be reckoned quite superfluous to mention in this place.

The deaths in childhood from *Erysipelatous inflammation*, amount in the twenty years to ninety-two, of which number sixty-four are represented as having occurred under the first year. From this estimate we may infer that the affection is much less fatal in this city than in many parts of Europe, particularly in their various lying-in hospitals.

Computing the whole number of deaths by inflammations of all kinds, for each period specified in the table, they would stand thus: under the first year, eight hundred and seventy-one—between the first and second years, three hundred and seventy-three—between the second and fifth, two hundred and ninety-nine—between the fifth and tenth, two hundred and eleven—and between the tenth and twentieth, two hundred and sixty-four—making altogether the sum of two thousand and eighteen.

The fourth class of diseases, according to the arrangement of the table, is that of *Dropsies*, the proportion of deaths from which to those of all other diseases under puberty, is one in twelve. The whole amount of deaths from this source in the twenty years, is one thousand eight hundred and seventy-one, of which number, no less than one thousand five hundred and thirty-nine are reported as having occurred from *dropsy of the brain* alone, being one in fifteen of the deaths under puberty from all other causes. The highest number in any single period, is five hundred and thirty-one under the first year: the lowest, fifty-two, between the first and second years.

The number of deaths reported from *Debility and decay*, make this head the fifth in the scale of mortality. There is much vagueness and obscurity in this title, and there can be little doubt that it has been often resorted to when the indications of the specific disease have been slightly or but imperfectly understood. The proportion of deaths before the age of puberty reported under this head is as one to fourteen of those from all other affections.

The deaths from *Fevers* make this head the sixth in the scale, the whole amount of all kinds being one thousand four hundred and ninety-six, or one in fifteen of all other diseases under puberty.

Of *Scarlet Fever* the amount for the whole twenty years is ninety-three.

The number of deaths from fevers of all other kinds, increases as the age advances, being much the greatest under the last period.

Consumption is the seventh in the scale of mortality. As might be expected, the number of deaths increase by it, as the age advances.

Hives or Croup, occupies the eighth place. The whole amount of deaths during twenty years, from this very prevalent affection, is one thousand and thirty, being to the whole number of deaths under puberty from other diseases, as one in twenty-two. The number under the first year, is four hundred and thirty-five; between the first and second two hundred and forty-three; between the second and fifth, two hundred and seventy-four; after which, the diminution is so great, that but one is reported as having died during the whole period between the ages of ten and twenty.

The same observations are likewise applicable in a general way, to *Hooping Cough*, with regard to which no further comment seems necessary in this place.

Table IX.

In this table an estimate is given of the proportion of deaths in Philadelphia, to the population. The calculations are made to embrace the period between 1807 and 1820, as in the first of these years, the reports of deaths began, and in 1820, the last census by order of the general government was taken, there being no provision in Pennsylvania for taking a regular state census. Unwilling to rest our calculations upon conjecture, we shall estimate the population no further than the data are certain. To reckon the increase at the rate which subsisted between the years 1810 and 1820, would certainly lead to a false result, inasmuch as the intermediate period was one of almost constant commercial distress and embarrassment, directly calculated to repress the growth of population.

The estimate of inhabitants in this statement, has therefore been formed upon the official returns made to the general government, which give for those parts of the town from which returns of interments are made, in

1800	71,378
1810	98,282
1820	121,980

The amount for each intermediate year has been calculated upon the supposition that the increase took place in a regular ratio. The smallest number of deaths in proportion to the population was 1 out of 56.53, in the year 1815: the greatest 1 in 38.25, in 1820. The average proportion for the whole series of fourteen years, is 1 death in 47.86 inhabitants.

In this calculation no regard has been paid to the difference existing between the mortality of the whites and blacks, which it will be presently seen, is such as to lessen considerably the average proportion for the white population.

It is only from the year 1821, that we find a distinction of colour made in the bills of mortality. As therefore we have not the power of ascertaining the precise rate at which the black population has increased since that time, in order to estimate the proportion of deaths to the number of inhabitants, we are compelled to appeal to conjecture for some of the data, or to abandon altogether this most interesting subject. To take as a basis the rate at which the black population increased between 1810 and 1820, might lead to much incorrectness, since in this period, owing to the existence of extraordinary circumstances, among which we may mention the epidemic of 1818, 1819, the increase was less than in former years. This is shown by refering to the last censuses, which give the number of blacks for the city and suburbs as follows:

In 1800 - - - - - - -	6,467
1810 - - - - - - -	9,913
1820 - - - - - - -	11,384

Thus we find the increase between 1800 and 1810, amount to 37.7 per cent. or at an average of 3.7 per cent. per annum, whilst in the ten succeeding years it is only 14.8 per cent. or 1.48 per cent. per annum. Reckoning the increase since 1820, notwithstanding the late emigration to Hayti, at the rate of two per cent. per annum, the estimate of black population and the comparative proportion of its mortality would stand as follows:

Year.	No. of Deaths per annum.	Population per annum.	Proportion of deaths to population as 1 in—
1821	686	11,611	16
1822	560	11,843	21
1823	800	12,079	15
1824	703	12,320	17
1825	495	12,566	25
1826	529	12,817	24
	3773	73,236	118

The average proportion of the deaths of blacks to their population, according to the most favourable computation, embracing a period of six years, is 5.1 per cent.

In the city and suburbs the blacks constituted, in 1820, about 9.3 per cent. of the whole population.

Of the whole amount of deaths reported in the bills of mortality during six years, about 16 per cent. were of blacks.

If, therefore, we deduct 9.3 per cent. as the proportion of blacks, from the total of the column of population, and from that containing the whole amount of deaths, about 16 per cent. as the proportion of blacks, the average mortality would be as one death in 50.8 of the white inhabitants, that of the blacks to their population being as 1 death in 19.

TABLE X.

This table exhibits a comparative view of the mortality of males and females, both of adults and children, from the year 1811, when a distinction of sex was first made in the annual reports, to the year 1826, inclusive: and likewise the number born in each year, both of males and females, since 1820, when the record of births first began.

It must be observed that the addition of the sums of males and females reported in this table, do not always make up those in the column of totals, as in some instances the distinction of sex has been omitted in the original certificates.

In the comparative estimate for sixteen years of the mortality of the sexes at all ages, that of females is on an average 23 per cent. less than that of males; being in the ratio of only 77 females to 100 males.

Of the deaths under the twentieth year, the excess of males is 18.5 per cent., being at the rate of about 81 females to 100 males; but of the whole mortality of adults, the excess of males amounts to 28 per cent., being in the proportion of only 72 women to 100 men.*

That part of the table appropriated to the *Births*, will serve to exhibit with more accuracy the relative proportion of the sexes, than to afford correct comparative estimates of the relative proportions existing between the births, deaths, and population. Leaving, therefore, all other calculations till the data shall be less equivocal, we will only observe, that the proportion of the sexes at birth is about 91 females to 100 males.

---

* Calculations in England make the proportion of deaths of women to that of men as 92 to 100. This disparity in the chances of life in the sexes, affects very greatly the estimates of pecuniary interests depending upon the duration of life, so that the prices of annuities for females to enjoy whilst living, are much higher than those demanded for men. It will be evident from the data furnished in this table, that the chances of life are still more favourable to the female sex in this part of America, than they are represented to be in England.

TABLE XI.

This table exhibits the ages at which the deaths in Philadelphia have occurred in each one of a series of twenty years. Beginning with the deaths which took place under the first year of life, and ending with those between one hundred and ten and one hundred and twenty, the whole time is divided into fifteen periods,* the mortality at each of which in proportion to the whole amount, with ages designated,† is as follows:—

Under 1 year,		as	1 in	4.6
Between 1 and	2		1	11.
2	5		1	14.
5	10		1	25.
10	20		1	20.
20	30		1	8.4
30	40		1	7.6
40	50		1	9.6
50	60		1	13.
60	70		1	18.
70	80		1	27.
80	90		1	45.
90	100		1	156.
100	110		1	873.
110	120		1	7363.

The statement contained in this table of the periods of life, at which each of fifty-one thousand five hundred and forty-four individuals of all ages and conditions died, constitutes the best foundation we possess for an estimate of the *mean duration of human life*, in

---

* Another period, namely, between the tenth and twentieth years, has of late been introduced into the bills of mortality, but it is thought best to continue the table with the distinctions first established.

† Of the whole amount of deaths reported during twenty years, viz. fifty-three thousand and four, there were one thousand four hundred and sixty, whose ages were unknown, leaving the number of deaths with ages designated, fifty-one thousand five hundred and forty-four.

Philadelphia at this epoch. The sum of the ages at which the deaths occurred, divided by the number of the deceased, gives 29.35 years as the mean duration. This is the result of an average of twenty years, the mean of each of which is given in the column next to that containing the amount of deaths for each year. It is interesting to observe the variations in the successive years occasioned by the greater or less mortality of children.*

It is a rule applicable to calculations of this nature, that the multiplicity of observations destroy the operation of accidental circumstances, and establish those depending upon certain and regular causes.

[illegible] therefore evident, that had the number of observations of the [illegible] which deaths occurred been greater, the mean value would have been so much the more accurate.

---

* The ancient Romans kept with much exactness registers or tables, show[illegible] the births, sex, periods of puberty, manhood, age at death, diseases, &c. [illegible]us Ulpianus, prime minister to Alexander Severus, estimated from these [illegible] the mean duration of human life in ancient Rome in his time, at thirty years.

TABLE VI.

Showing the proportion of Deaths in Philadelphia by each of the most frequent Diseases, to the whole number of Deaths; estimated from a series of twenty years, and arranged so as to form a scale of mortality.

Order of Mortality.	DISEASES.	Whole Number of Deaths.	Being to the whole amount of Deaths as 1 in—	Whole number of Deaths from Diseases of a similar class.	Proportion of Deaths from Diseases of a similar class to the whole number of Deaths as 1 in—
1	Consumption - - - -	7977	6.6		
2	Bowel Complaints; viz. Cholera - - - - -	3812	13.9	6289	8.4
	—— Dysentery and Diarrhœa	2477	21.4		
3	Fevers: viz. Puerperal -	190	278.		
	—— Scarlet - - - -	102	519.5		
	—— Typhus, Remittent, and other kinds - - - -	6564	8.		
4	Inflammations; viz. of the Lungs and Chest - -	2284	23.2	4758	11.1
	—— Stomach and Bowels	1214	43.6		
	—— Brain - - -	583	90.1		
	—— Liver - - -	518	102.3		
	—— Uterus and Peritoneum	76	695.5		
	—— Kidneys and Bladder	49	1081.7		
	—— Heart, Pericardium and Spleen - - - -	18	2944.6		
	—— Erysipelatous -	162	327.1		
5	Convulsions - - - -	3731	14.2		
6	Dropsy (kind not designated)	1351	39.2	3474	15.2
	—— of the Brain - -	1602	33.		
	—— of the Chest - -	521	101.7		
7	Debility and Decay - -	3273	16.2		
8	Old Age - - - - -	1089	48.6		
9	Small Pox - - - - -	1080	49.		
10	Hives or Croup - - - -	1041	50.9		
11	Hooping Cough - - - -	804	63.1		
12	Apoplexy - - - - -	800	66.2		
13	Sudden - - - - -	798	66.4		
14	Measles - - - - -	667	79.5		
15	Catarrh - - - - -	546	97.		
16	Atrophy, Tabes and Marasmus	542	97.8		
17	Gangrene and Mortification	413	130.7		
18	Sore Throat - - - -	355	149.3		
19	Burns and Scalds - -	275	192.7		
20	Hæmorrhage of all kinds -	274	193.4		
21	Cancer and Scirrhus - -	272	198.8		
22	Asthma - - - - -	205	258.5		
23	Cholic - - - - -	202	262.4		
24	Epilepsy - - - - -	175	302.8		
25	Rheumatism - - -	139	381.3		
26	Syphilis - - - - -	136	389.7		
27	Tetanus or Locked Jaw -	125	424.		
28	Suicide - - - - -	102	519.5		
29	Parturition and Childbed -	90	588.9		

TABLE VII.

Statement of the Mortality in Philadelphia, from those Diseases which occur most commonly under the age of puberty with the number of Deaths which took place in each year of a series of twenty years.

Years.	Bowel Compl.				Dropsies			Inflammations							Fevers													
	Cholera.	Diarrhœa and Dysentery	Whole number of Bowel Complaints.	Convulsions.	Of the Brain.	Of the Chest	Of all kinds.	Of the Lungs.	Stomach & Bowels.	Brain.	Liver.	Erysipelas.	Of every kind.	Debility and Decay	Scarlet.	All others.	Consumption.	Hives or Croup.	Hooping Cough	Measles.	Catarrh.	Atrophy, Tabes, and Marasmus.	Sore Throat.	Teething.	Worms.	Gangrene and Mortification	Epilepsy.	Tetanus.
1807	183	72	255	127	44	4	54	24	20	4	1	2	51	28	1	39	36	54	17		1	19	5	10	37	7	2	6
1808	217	68	285	118	44		51	37	16	9	7	3	72	41	2	38	53	51	11	71	19	22	6	10	18	9	4	5
1809	147	51	198	146	36	6	45	17	25	6	1	4	51	24	3	36	45	31	95		8	7	5	15	13	4	2	3
1810	201	29	230	167	41	14	60	25	21	7	5		58	42	2	39	33	46	32	1	3	7	12	7	15	5	1	1
1811	224	24	248	134	35	9	57	30	22	4	4	5	63	40	2	59	47	40	52	2	6	7	20	20	10	11	4	3
1812	154	27	181	165	48	4	56	21	49	11	3	1	88	30	1	33	50	20	24	20	16	10	14	11	8	10		
1813	173	59	232	157	37	6	49	18	33	4	8	2	65	28		59	17	34	29		2	8	12	9	8	3	2	2
1814	125	43	168	162	39	1	45	25	28	4	7	4	68	35		45	51	21	21	8	11	15	10	10	4	7	3	1
1815	92	43	135	168	60	9	78	25	19	19	7	1	71	44		44	107	19	6	7	11	10	11	8	9	4	3	2
1816	87	26	113	147	80	2	89	50	18	9	4	8	89	51		34	58	38	45	2	40	15	10	23	12	9	1	
1817	130	60	190	157	61	8	77	29	29	10	2	4	74	35		38	64	21	21		20	14	9	26	14	6		2
1818	196	36	232	123	67		83	33	43	14	3	4	97	62	1	50	42	48	6		10	34	16	17	7	6	1	
1819	246	55	301	184	89	2	125	66	32	22	3	4	127	100	2	70	66	80	150	106	24	33	24	13	11	12	5	2
1820	249	117	366	152	114	6	134	79	25	27	3	7	141	115	30	146	75	87	11	47	24	15	16	4	9	11	6	2
1821	177	111	288	136	98	8	118	60	32	19	6	7	124	111	13	77	57	63	36		20	21	21	14	10	7	7	3
1822	200	108	308	166	117	5	130	40	41	24	6	2	123	139	8	108	64	73	38		26	17	14	11	13	9		1
1823	253	172	425	192	144	8	172	62	38	25	3	13	148	194	8	199	77	[illegible]7	79	155	21	23	28	10	14	26	5	10
1824	155	76	231	336	124	9	142	93	55	35	4	9	196	163	8	134	77	84	42	99	45	10	30	11	10	14	6	4
1825	197	96	293	205	138	2	163	52	28	33	3	7	133	169	8	113	60	75	46	38	60	18	14	15	9	15	3	4
1826	233	100	333	232	123	4	143	82	46	32	14	5	179	188	4	138	56	79	42	98	54	20	5	12	6	8	9	4
Totals.	3639	1373	5012	3353	1539	107	1870	867	620	319	94	92	2018	1639	93	1496	1145	1030	803	654	421	327	282	256	343	183	64	55

TABLE VIII.

Statement of the Mortality in Philadelphia, from Diseases most incident to the early periods of Life, for a series of twenty years, viz from January 1, 1807, to January 1, 1827: showing the proportion of Deaths from each particular disease to the whole number of Deaths under twenty years of age. The names of diseases arranged in the order of their mortality.

	NAMES OF DISEASES.	Under 1 year.	Between 1 and 2.	Between 2 and 5.	Between 5 and 10.	Between 10 and 20.	Totals.	Proportion of Deaths by individual diseases to the whole number as 1 in—
1	Cholera	2122	1186	268	52	11	3639	6.3
	Diarrhœa and Dysentery	513	382	254	125	99	1373	16.8
	Whole number of Bowel Complaints	2635	1568	522	177	110	5012	4.6
2	Convulsions	2556	387	249	105	56	3353	6.9
	Inflammation of the Lungs	392	183	142	60	90	867	26.
	—— Stomach and Bowels	297	116	72	63	72	620	37.
	—— Brain	72	43	65	64	75	319	73.
	—— Liver	37	21	10	17	9	94	246.
	—— Erysipelatous	64	10	7	3	8	92	251.
	—— Other kinds	9		[illegible]	4	10	26	890.
	Whole number from inflammations	871	373	299	211	264	2018	11.
4	Dropsy of the Brain	531	399	366	191	52	1539	15.
	—— of the Chest	18	19	20	21	29	107	216.
	—— kinds not designated	39	27	59	30	70	225	102.
	Whole number of dropsical affections	588	445	445	242	151	1871	12.
5	Debility and Decay	1072	243	167	87	70	1639	14.
6	Fever, Scarlet	8	11	37	17	20	93	249.
	—— Other kinds	209	154	293	262	578	1496	15.
7	Consumption	185	143	167	140	510	1145	20.
8	Hives or Croup	435	243	274	77	1	1030	22.
9	Hooping Cough	325	241	191	42	4	803	28.
10	Measles	121	237	215	71	10	654	35.
11	Small Pox	150	123	175	121	71	640	36.
12	Catarrh	261	78	63	12	7	421	55.
13	Atrophy, Tabes and Marasmus	186	61	47	14	19	327	70.
14	Sore Throat	98	49	76	43	16	282	82.
15	Teething	108	103	41	3		255	90.
16	Worms	28	54	102	51	8	243	95.
17	Burns and Scalds	29	37	78	39	14	197	117.
18	Gangrene and Mortification	60	24	55	25	19	183	126.
19	Scrofula	35	36	41	21	44	177	130.
20	Sudden	74	11	10	24	8	127	181.
21	Epilepsy	16	4	14	6	24	64	361.
22	Abscess	13	7	10	15	11	56	413
23	Tetanus or Locked Jaw	13	1	6	12	23	55	421.
24	Aphthæ or Thrush	41	8	1	2		52	445.
25	Icterus or Jaundice	31	1	1	4		37	625.
26	Syphilis	18	5		5	4	32	723.
27	Spina Bifida	12		5	4	6	27	857.
28	Disease of the Hip Joint	1	1		7	9	18	1286.
29	Gravel and Stone		1	[illegible]		2	10	2316.
30	Hernia		[illegible]	1			3	7720.

TABLE IX.

An Estimate of the Proportion of Deaths in the City and Suburbs of Philadelphia, to the population, for each year of a series of fourteen years; together with the average number for the whole period.

Year.	Whole No. of Deaths.	Population.	Proportion of Deaths to population as 1 in
1807	1961	89,270	45.52
1808	2145	92,190	42.97
1809	1884	95,180	50.52
1810	1897	98,282	51.80
1811	2249	100,428	44.65
1812	2017	102,619	50.87
1813	2223	104,900	47.18
1814	2041	107,149	52.49
1815	1943	109,500	56.53
1816	2225	111,900	50.29
1817	2107	114,300	54.24
1818	2609	116,800	44.74
1819	2979	119,400	40.08
1820	3189	121,980	38.25
			14) 670.13

Average proportion of Deaths to population as 1 in 47.86

TABLE X.

Statement of the Deaths of Adults and Children, Males and Females, for each of the following years; together with the Birth for a part of the time.

Years.	DEATHS.						Number of Deaths per annum.	BIRTHS.		
	Male Adults.	Male Children.	Whole number of Males.	Female Adults.	Female Children.	Whole number of Females.		Males.	Females.	Whole number of Births per annum.
1811	719	562	1281	525	433	958	2239			
1812	505	419	924	417	381	798	1722			
1813	521	308	829	322	388	710	1539			
1814	540	373	913	425	289	714	1627			
1815	763	371	1134	490	284	774	1908			
1816	703	450	1153	585	399	984	1537			
1817	748	438	1186	545	379	924	2110			
1818	925	512	1437	754	441	1195	2632			
1819	795	824	1619	616	659	1275	2894			
1820	955	780	1735	740	693	1433	3168	1709	1501	3210*
1821	937	721	1658	636	588	1224	2882	2630	2417	5047
1822	1171	815	1986	763	651	1414	3400	3021	2701	5722
1823	1329	1110	2439	1031	1032	2063	4502	2977	2836	5813
1824	1017	1303	2520	1076	919	1995	4315	3062	2771	5833
1825	1119	932	2051	855	830	1685	3736	3444	3182	6626
1826	1055	1142	2197	985	962	1947	4144	3526	3219	6745

* This amount is only for the last nine months of the year, as the registry commenced on the 1st of April, 1820.

TABLE XI.

The Ages or Periods of Life at which the Deaths in Philadelphia have occurred in each year of a series of twenty years, viz: from January 1, 1807, to January 1, 1827. The Still-born are excluded.

Years.	Under 1 year.	Between 1 and 2.	Between 2 and 5.	Between 5 and 10.	Between 10 and 20.	Between 20 and 30.	Between 30 and 40.	Between 40 and 50.	Between 50 and 60.	Between 60 and 70.	Between 70 and 80.	Between 80 and 90.	Between 90 and 100.	Between 100 and 110.	Between 110 and 120.	Whole No. of Deaths per annum.*	Average mean Duration of life for each year.
1807	295	235	121	65	79	144	236	172	139	88	79	60	11	4		1961	28.41
1808	457	284	167	98	95	212	219	186	128	98	61	30	7	2		2145	25.53
1809	466	172	92	52	74	203	226	159	95	77	67	44	14	1	1	1884	27.76
1810	452	169	115	59	73	240	264	163	142	96	68	45	9	2		1897	29.61
1811	451	188	164	77	101	281	290	208	158	95	79	27	11	4		2249	28.25
1812	395	165	92	53	70	159	245	167	114	82	72	34	10			2017	29.21
1813	365	144	130	64	62	107	186	158	120	102	68	51	7	1	1	2223	30.03
1814	390	122	104	53	72	154	239	175	132	106	78	42	18	2		2041	31.67
1815	358	116	97	89	147	254	249	238	155	103	73	48	15	1		1943	32.25
1816	338	168	171	133	81	272	366	265	154	126	68	63	15	5		2225	30.44
1817	438	138	134	73	96	256	325	222	162	106	84	61	11	1		2107	31.50
1818	472	214	118	68	94	370	446	316	187	138	90	67	24	5		2609	32.90
1819	706	334	269	121	130	345	364	262	171	113	96	41	20	6	1	2979	25.80
1820	650	307	241	130	175	443	396	313	202	152	96	61	18	3	2	3189	28.36
1821	633	215	193	102	138	405	396	324	221	154	97	61	21	1		2161	30.22
1822	696	243	193	121	168	424	441	348	264	217	130	67	18	4		3334	31.24
1823	854	401	299	184	232	537	336	462	312	214	137	76	24	3	1	4372	26.67
1824	936	384	364	221	255	409	486	435	309	218	177	67	20	5		4284	28.15
1825	836	250	232	128	140	432	479	373	263	171	122	85	24	4		3539	29.76
1826	844	380	285	134	188	[illegible]	452	380	271	209	135	98	32	7	1	3845	29.30
Totals.	11032	4629	3581	2025	2470	6076	6641	5326	3699	2665	1877	1128	329	59	7	53004	29.35

* This column gives the whole amount of deaths, including those where the age of the deceased was not reported

Art. IX. *Successful Ligature of the Common Iliac Artery.* By Valentine Mott, M. D. Professor of Surgery in Rutgers Medical College, New York.

A DETAILED account of the first operation ever performed upon the *arteria iliaca communis*, for the cure of *aneurism*, and especially of the first attempt to apply the ligature to so great a vessel, without dividing the peritoneum, may prove interesting to the profession generally, and must be immediately serviceable to practitioners of surgery. It is therefore as an act of duty, rather than of choice, that the following statement has been prepared, during such few and brief intervals of leisure, as could be obtained amid the daily engagements and solicitudes of business.

On the 15th of March, 1827, I was requested to visit a patient with Dr. Osborn, (of Westfield, New Jersey, about twenty-five miles distant from New York,) whom we found labouring under a large aneurism of the right external iliac artery.

Israel Crane, aged thirty-three years, by occupation a farmer, of temperate and regular habits, having generally enjoyed excellent health, says about the middle of January he felt some pain about the lower part of the belly, which he attributed to a fall received during the winter. He is in the habit of using great efforts in lifting heavy logs of wood, as his employment at this season consists in carrying wood to market. It, however, was not until a fortnight since, that he perceived any tumour about the lower part of the abdomen. Upon examination, the abdomen on the right side was considerably enlarged from about the crural arch, as high as the umbilicus. When the hand was applied to the parietes of the abdomen, a pulsation was felt and rendered visible to some distance. To the touch the tumour beat violently, and appeared to contain only fluid blood. It commenced a little above Poupart's ligament, and reached, judging by the touch from without, near the navel—inwards, almost to the linea alba—outwards and backwards filling up all the concavity of the ilium, and reaching beyond the posterior spinous process of that bone.

The rapid increase of this aneurismal tumour occasioned, as the countenance of our patient indicated, the most extreme agony. His sufferings at times were so great that his screams could be heard at a distance from the house. He had been bled several times, taken light food, and was kept constantly under the effect of opium. He was now informed of the serious nature of his case, and that without an operation very little chance of his life remained; with great composure he immediately consented to whatever would give him the best prospect of saving his life.

From the extent and situation of the tumour, he was apprised of the uncertain nature of the operation, as well as the difficulty of performing it, and indeed that it would require an artery to be tied, which never had been before operated upon for aneurism. With these views of his situation, he cheerfully submitted to be placed upon a table of suitable height in a room which was well lighted.

Then, in the presence of Dr. Osborn, Dr. Liddle, and Dr. Cross, the following operation was performed:—

The pubes and groin of the right side being shaved, an incision was commenced just above the external abdominal ring, and carried in a semicircular direction half an inch above Poupart's ligament, until it terminated a little beyond the anterior spinous process of the ilium, making it in extent about five inches. The integuments and superficial fascia were now divided, which exposed the tendinous part of the external oblique muscle, upon cutting which in the whole course of the incision, the muscular fibres of the internal oblique were exposed; the fibres of which were cautiously raised with the forceps and cut from the upper edge of Poupart's ligament. This exposed the spermatic cord, the cellular covering of which was now raised with the forceps, and divided to an extent sufficient to admit the forefinger of the left hand to pass upon the cord into the internal abdominal ring. The finger serving now as a director, enabled me to divide the internal oblique and transversalis muscles to the extent of the external incision, while it protected the peritoneum. In the division of the last mentioned muscles outwardly, the circumflexa ilii artery was cut through, and it yielded for a few minutes a small bleeding. This, with a smaller artery upon the surface of the internal oblique muscle, between the rings, and one in the integuments were all that required ligatures.

With the tumour beating furiously underneath, I now attempted to raise the peritoneum from it, which we found difficult and dangerous, as it was adherent to it in every direction. By degrees we separated it with great caution from the aneurismal tumour, which had now bulged up very much into the incision. But we soon found that the external incision did not enable us to arrive to more than half the extent of the tumour upwards. It was therefore extended upwards and backwards about half an inch within the ilium, to the distance of three inches, making a wound in all about eight inches in length.

The separation of the peritoneum was now continued until the fingers arrived at the upper part of the tumour, which was found to terminate at the going off of the internal iliac artery. The common iliac was next examined by passing the fingers upon the promontory of the sacrum, and to the touch appearing to be sound, we determined to place our ligature upon it about half way between the aneurism and the aorta, with a view to allow length of vessel enough on each side of it to be united by the adhesive process.

The great current of blood through the aorta made it necessary to allow as much of the primitive iliac to remain between it and the ligature as possible, and the probable disease of the artery higher than the aneurism, required that it should not be too low down. The depth of this wound, the size of the aneurism, and the pressure of the intestines downwards by the eff[illegible] bear pain, made it almost impossible to see the vessel we wished to tie. By the aid of curved spatulas, such as I used in my operation upon the *innominata*, together with a thin, smooth piece of board, about three inches wide, prepared at the time, we succeeded in keeping up the peritoneal mass, and getting a distinct view of the arteria iliaca communis, on the side of the sacro vertebral promontory. This required great effort on our part, and could only be continued for a few seconds. The difficulty was greatly augmented by the elevation of the aneurismal tumour, and the interception it gave to the admission of light.

When we elevated the pelvis, the tumour obstructed our sight; when we depressed it, the crowding down of the intestines presented another difficulty. In this part of the operation I was greatly assisted by Dr. Osborn and my enterprising pupil, Adrian A. Kissam.

Introducing my right hand now behind the peritoneum, the artery was denuded with the nail of the forefinger, and the needle conveying the ligature was introduced from within outwards, guided by the forefinger of the left hand in order to avoid injuring the vein. The ligature was very readily passed underneath the artery, but considerable difficulty was experienced in hooking the eye of the needle, from the great depth of the wound and the impossibility of seeing it. The distance of the artery from the wound was the whole length of my aneurismal needle.

After drawing the ligature under the artery, we succeeded by the aid of our spatulas and board in getting a fair view of it, and were satisfied that it was fairly under the primitive iliac, a little below the bifurcation of the aorta. It was now tied—the knots were readily conveyed up to the artery by the forefingers—all pulsation in the tumour instantly ceased. The ligature upon the artery was very little below a point opposite the umbilicus.

The wound was now dressed with five interrupted sutures, passing them not only through the integuments, but the fibres of the cut muscles, so as to bring their divided edges together at all parts of the incision, which was muscular. Adhesive plaster to assist the stitches, lint and straps to retain it, completed the dressing. The operation lasted rather less than one hour.*

He was removed from the table, and put into bed upon his back, with the knee a little elevated upon pillows to relax the limb as much as possible, and to avoid pressure upon it. It was considerably cooler than the opposite leg, and flannels were applied all over it, and a bottle of warm water to the foot. From the habit he had been in of taking largely of anodynes, a tea-spoonful of the tinct. opii. was administered, with directions to repeat it in an hour if the pain should be severe.

In less than one hour from the operation, considerable reaction of the heart and arteries took place; he felt, as he stated, altogether relieved from the excruciating agony he had suffered since the aneurism commenced. The whole limb had now recovered its natural temperature.

March 16*th*. The day after the operation, pulse eighty, skin moist —limb warm as the other—complains of some pain at the ligature—ordered a purgative of neutral salts.

17*th*. Pulse eighty, and fuller than yesterday—took ℥x. of blood from his arm—skin moist—tongue brown—considerable uneasiness in the limb—no pain at the ligature—leg of natural heat—salts had a good effect.

18*th*. Pulse seventy-five—skin moist—tongue white—pain in the limb considerable—no pain at the ligature or in the wound—limb warm.

19*th*. Bled him to-day to ten ounces, the pulse being tense and beating eighty strokes in a minute—repeated the cathartic—suppuration appearing to have taken place, the dressings were removed.

---

* Dr. Gibson, then professor of surgery in Baltimore, was near the spot during the riots in that city, when a man was wounded by a musket ball, "which entered the left side of the abdomen, passed through the intestines, opened the iliaca communis artery, and lodged in the sacrum." The doctor states, "thrusting into it, (the wound,) the forefinger of my left hand, I discovered that a very large artery had been torn across, and was pouring out blood in considerable quantity." The man died in a few days. "Upon inspecting the vessels of the abdomen," says the doctor, "I found that I had placed two ligatures upon the common iliac artery of the left side, one about half an inch below the bifurcation of the aorta, and the other immediately above the division of the artery into the external and internal iliacs." See Medical Recorder, Vol. 3, p. 185

20th. Pulse seventy and soft—skin moist—wound looks well—pain in the limb continues—leg warm as the other—cathartic operated well.

21st. Pulse seventy and soft—wound looks well—repeated the laxative—pain in the leg rather less—continues warm. There has been at no time tension of the abdomen or any particular uneasiness in that part. The patient thus far has been altogether more comfortable than could have been imagined. He takes more or less opium daily, from the long habit he has been in of taking anodynes.

26th. No unpleasant symptom—wound looks well—bled again to ℥xij. as there was a little tumefaction and inflammation about the wound.

30th. Our patient continues to do well—wound dressed daily.

April 3d. Not being able to leave the city, I requested Dr. PROUDFOOT, my late pupil, and a most promising young surgeon, to visit the patient. He reports that he was free of fever—wound all healed but where the large ligature was passing. The ligature appearing to be detached, the doctor took hold of it and removed it: this was on the eighteenth day from the time of its application. Limb of the natural temperature—enjoined upon him to keep very quiet and in bed.

8th. There are no disagreeable appearances whatever—he appears to be doing remarkably well—has been bled once since the last report—takes a purgative every other day, and an opiate every night—pulse as in health—no pain—says he is entirely comfortable—wound is dressed with dry lint.

16th. Has improved rapidly since the last report. Two days after the ligature came away he very imprudently got out of bed without experiencing any difficulty, except weakness. Rode out to-day—wound perfectly healed.

26th. He has been using crutches for a few days to favour the lame leg, which, as yet, feels rather weak. General health greatly improved.

30th. Is perfectly restored in health—has a little stoop in his walk, which he says is occasioned by the external cicatrix. Leg is not yet of its full size, nor quite so strong as the other. From the period of the operation, to the recovery of our patient, he did not appear to suffer more pain, or have more unpleasant symptoms, than would ordinarily take place in a flesh wound of equal extent. Much of this, in my opinion, is to be attributed to the prompt and judicious antiphlogistic treatment pursued by Dr. Osborn, to whom I am indebted for the daily reports of the case.

May 29th. My patient visited me to day, having come twenty-five miles; he was so much improved in health that I did not recognize him. Examined the cicatrix and found it perfectly sound—could not discover any remains of aneurismal tumour—felt the epigastric artery much enlarged and beating strongly, and a feeble, though distinct pulsation in the femoral artery immediately below the crural arch. The leg has its natural temperature and feeling, and he says it is as strong as the other.

Much credit is due the patient for his firmness on the occasion; although apprised of the great danger attending so formidable an experiment, and the uncertainty of its result; yet with a fortitude unshaken, and a full conviction that it was the only chance of prolonging his life, he cheerfully and resolutely submitted to the operation.

The gratification his visit afforded me is not to be imagined, save by those who have been placed under similar circumstances. The perfect success of so important and novel an operation, with the entire restoration of the patient's health, was a rich reward for the anxiety I experienced in the case, and in a measure compensated for the unexpected failure of my operation on the *arteria innominata.*

New York, 25 *Park Place. October* 15*th,* 1827.

Art. X. *Notices of some Anomalous Cases of Dropsy.* By N. Chapman, M. D.

It is a common remark of writers, that in the commencement, as well as throughout the subsequent stages of dropsy, particularly ascites, there is sometimes almost as much distress from flatulence, as by the accumulation of the fluid. For this and several other reasons. I once thought it not unlikely, that occasionally the blood-vessels may, instead of a serous effusion, secrete a gas, which by some process not understood, might be converted into a fluid state. That the blood-vessels are capable, and do exercise such an office, has been shown by Mr. Hunter, and is rendered probable by a variety of facts. Dropsy, I have seen in several instances to follow flatulent colic—and I had, some years ago, under my care, in consultation with the late Dr. Wistar, the case of a boy, which strongly supports the hypothesis.

Having become heated and fatigued by skaiting, he laid on the ice, and after a time, was seized with colic, attended by a distention of the abdomen, amounting to tympanites. By carminatives, opiates, and external warmth, he was speedily relieved of pain, but on our next visit, a few hours afterwards, we were astonished to find that he laboured under ascites, with œdema of the lower extremities, which proved exceedingly tedious, though he finally recovered.

During the summer of 1825, I had under my care a lady from the country, who, after eating watermelon and some other fruit, was attacked, according to her report, with violent colic, followed immediately by tympanitic distention. On examination I found she had confirmed ascites with œdematous swellings of her feet and ankles, from which she was relieved by copious diuresis and watery discharges from the bowels.

It seems, moreover, that dropsy may be induced by repelled perspiration, or in other words, by an inverted action of the exhalents. Cases to this purport have also come under my notice. Not many years ago, I attended a gentleman, with Dr. Physick, who, returning from a tiresome and dusty ride, went into a warm bath. The water was so uncomfortably hot, that he could scarcely bear it. He, however, continued in it for half an hour, and on coming out felt chilly and soon experienced the distention of ascites, and finally died of universal dropsy.

Nearly about the same time I was called to another gentleman, in consultation with Dr. Physick also, with general dropsy, who traced its commencement directly to his having imprudently plunged into a cold bath, whilst heated and sweating from exercise. Each of these individuals was in the meridian of life, of robust constitution, and previously in the enjoyment of perfect health.

These are anomalous cases, apparently exceptions to the doctrine of the universal and inseparable connection of dropsy with inflammation. But, perhaps, they may be reconciled to it. In the instances, for example, which were preceded by colic and tympanitic distention, it is not altogether unreasonable to suppose that the irritation was extended to the peritoneum, exciting phlogosis—and in relation to the others, succeeding to the use of the hot and cold bath, it is more manifest that there was a metastasis of the irritative impression made on the dermoid, to the serous tissue, and the effusion resulted accordingly. The external and internal exhalents act pretty much reversely, whatever is gained by the one is lost by the other, and very often there is an entire vicarious assumption of office respectively. The functions of the skin being suspended, what is more usual than to see some inward surface or organ increasing its efforts to compensate the loss. Generally, we have under these circumstances, watery diarrhœa, or an augmented urinary discharge. But imagine, that in stead of the bowels or the kidneys being thus affected, the peritoneum were excited, should we not be presented with hydropic results?

The doctrine, as now received, presumes that ascites is invariably the effect of pre-existing peritonitis, and especially of the sub-acute or chronic state of it, all the remote causes of the disease uniting to produce such an effect. Cases, however, of ascites, do sometimes follow the acute species of peritonitis, though always I believe, when it is originally weak, or much reduced and delicately diffused. The extravasation of coagulable lymph, or the secretion of pus is uniformly the product of it under opposite circumstances. But having so recently presented my views of the pathology of dropsy, I shall not here resume the subject.*

ART. XI. *Note of an interesting fact connected with the Physiology of Vision.* By JOHN D. GODMAN, M. D.

THE inverted images formed upon the retina in consequence of the passage of the rays of light through the apparatus constituting the anterior part of the eye, is well known not to lead to any inaccuracy of judgment as to the position of objects, in case the other senses are in their natural conditions. The following instance communicated to me by **REUBENS PEALE**, Esq. the uncle of the young man, is the only one with which we are at present acquainted, where the inversion of objects upon the retina was productive of inaccuracy of judgment as to position, notwithstanding all the other senses were in their ordinary condition, and the individual had arrived at the age of seven years.

When his father, who was a distinguished artist, began to give him lessons in drawing, he was very much surprised to find that whatever object he attempted to delineate, he uniformly inverted. If ordered to make a drawing of a candle and candlestick set before him, he invariably drew it with the base represented in the air, and the flame downwards. If it was a chair or table he was set to copy, the same result was the consequence; the feet were represented in the air, and the upper part of the object, whatever it might be was turned to the ground. His father, perplexed at what he considered the perverseness of the boy, threatened, and even did punish him for his supposed folly. When questioned on the subject, the youth stated that he drew the objects exactly as he saw them, and as his drawings were in other respects quite accurate, there was no reason to doubt his statement. Whenever an object was inverted previous to his drawing it, the drawing was made to represent it in its proper position, showing that the sensations he received from the eye were exactly correspondent with the inverted pictures formed upon the retina. This condition of his vision was observed to continue for more than a year, when his case gradually ceased to attract attention, which was when he was about eight years old. Since that time he has imperceptibly acquired the habit of seeing things in their actual positions.

---

* Vide Philadelphia Journal of the Medical and Physical Sciences, Vol. IV N. Series, No. 8. p. 298.

[The above case is highly curious and interesting. Professor CHAPMAN has met with one somewhat similar. A distinguished lawyer of this city for some time saw all objects inverted; thus the houses seemed to stand on their roofs, people on their heads. &c. This defect in vision was occasioned by disorder of the stomach, and ceased on that organ being restored to a healthy condition.

Several cases of anomaly of vision, of great interest as connected with the physiology of that function are on record, some of which it may be interesting to notice. Dr. WOLLASTON, in consequence of violent exercise, suddenly found that he could see but half the face of a man whom he met, and it was the same with every object he looked at. Thus, in attempting to read the name Johnson over a door, he only saw —— son, the commencement of the word being invisible. On this occasion the loss of sight was towards the left—it was of short duration. Several years afterwards he had a recurrence of the affection, but on this occasion the blindness was the reverse of the former, being to the right. It continued twenty minutes, and was suddenly removed by the excitement of agreeable news. Dr W. has met with other instances of half blindness.*

Dr. CRAWFORD relates the case of a female who was attacked with a slight hemiplegia of the left side. The patient regained the use of her limbs, but from the time of her seizure till her death, which happened about five years afterwards, when she looked at an object, she could only see the one-half of it, that was towards the right hand, distinctly, the other being very obscure. This was equally the case whether she looked with both eyes or only with the right one; but when she looked with the left only the obscurity was greater. When four fingers were held before her, she could see two of them distinctly, the third she could distinguish, but could not see plainly, and the fourth she could not see at all. When she looked at three fingers she could see two of them pretty plainly—the first, however plainer than the second—the third she could not distinguish at all. When she looked at two fingers she could see only one distinctly.

---

* Reasoning on these facts, Dr. Wollaston is led to conclude that decussation takes place between the adjacent portions of the optic nerves. Thus, that the portion of nerve that proceeds from the right thalamus to the right side of the right eye, passes to its destination without interference, and in a similar manner the left thalamus will supply the left side of the left eye with a corresponding portion; while the remaining portions of both nerves pass over each other, to the eye of the opposite side, intersecting each other, either with or without intermixture of fibres. This opinion is strengthened by the observations of Treverinus on the Simia aygula, and the observations of D'Azyr and the Wenzels on the optic nerves in man

After she had recovered so as to be able to get out of bed, it was discovered that, although she could see only half of an object plainly, when held directly before her, yet if it was moved towards her right hand, and she continued to look straight forward, she could see the whole of it distinctly. On the contrary, if it was moved toward her left hand, keeping her eyes fixed as before, she could not perceive any part of the object. It should be remarked that it was the left side of the body that was hemiplegic, yet it was the right half of each retina which was insensible.

The writer of this note has been twice affected with a species of half blindness, somewhat different, however, from any he has seen recorded. About twelve or fourteen years ago he was struck with the circumstance of his only seeing a portion of the objects at which he looked, and in order to satisfy himself respecting the state of his vision, he took a book and attempted to read. The lines appeared distorted, thus in looking at a word containing several letters, the first few were seen in their natural position, the remainder were invisible, but upon looking more attentively they were seen just above their natural position, as if occupying the line above, this line not being visible; on moving the eye along, these displaced letters became visible in their natural position, but the next word was seen in the situation of the line above, and so on. It was only when a strong effort to read was made that this distorted appearance was made out, when looking at the page, generally, a portion of it was seen tolerably distinctly, the remainder had a most confused appearance. The second attack was similar to the first—it occurred at an interval of two or three years. In both instances the affection was produced by gastric derangement, attended with considerable head-ache, it went off entirely when the cause was removed—neither continued longer than a few hours.

There is a respectable inhabitant of this city, who for years has had a derangement in the vision of his right eye, all objects that make a strong impression on the retina, as a lamp at night appearing multiplied sometimes to the extent of seven or eight. I. H. [illegible]

REVIEW.

Art. XII. *An Act for establishing a Health Office, and to secure the City and Port of Philadelphia from the introduction of Pestilential and Contagious Diseases, and for other purposes, passed January* 29*th*, 1818, *with its supplements of the years* 1821, 1824, 1826, 1827.

An Act to provide against Infectious and Pestilential Diseases, passed March 21*st*, 1823. *New York.*

An Ordinance to preserve the Health of the City of Baltimore, and for the due performance of Quarantine at the Port of Baltimore. 24*th March*, 1826.

City of Boston. An Ordinance Establishing and Regulating the Quarantine of Vessels, &c. Dec. 25, 1826.

THE imperfection and uncertainty in the science of medicine, have been a fertile source of complaint among the enemies of the profession, who have derided its theories and depreciated its doctrines, without comprehending the difficulties attendant upon its acquisition, or the extent of talent and observation necessary for its acquisition. Unfortunately we cannot deny that there is but too much truth in some of the allegations. In reviewing the annals of our art, it is mortifying to our pride to perceive that whilst other sciences have steadily advanced in usefulness, ours, certainly one of the most important and indispensable to human happiness, has remained a fearful distance in the rear.

There is no point connected with medicine that more strongly exemplifies the striking diversities of opinion among us, than that of contagion and the importation of pestilential diseases—no subject connected with our art has created more diligent inquiry, or more bitter controversy; volumes have been written on the subject, and as is too often the case in disputes, with little more effect than to confirm the authors in their preconceived opinions. That this point should have so generally attracted the attention of physicians in all ages, is not to be wondered at, as there is no question relating to medicine of deeper or more vital importance, not only as involving the commercial welfare and prosperity of our maritime cities, but also as intimately connected with the general safety of their inhabitants.

This question involves the patriotic feelings of physicians in every country, hence some are to be found who deny the possibility of the disease having originated with them; asserting that in every case it has been derived from abroad, and endeavouring to persuade themselves and the public, that the proofs of its foreign origin can always be readily traced to some vessel with the disease on board, that has arrived from a foreign port; whose inhabitants, on the contrary, are as firmly convinced that they have derived it elsewhere. This has been strongly exemplified in the United States in 1819, when in most of our seaports there was exercised a rigid system of quarantine as regards each other, whilst at the very time the yellow fever prevailed to a greater or less extent in them all; thus proving most incontestably either that the present quarantine laws are absurd, and that commerce is uselessly burthened with heavy expenses and vexatious delays—that the fears induced by the belief in importation and contagion are not only dangerous to the community, but destructive of the best feelings of humanity—and that the disease is wholly domestic in its origin, and depends on local circumstances for its appearance and prevalence; or, that if the doctrine of contagion be founded on fact, that the laws now existing are deficient in their operation, and require a total revision; for, should such be the case, quarantine restraints cannot be too rigidly enforced, at whatever may be the individual loss or suffering.

But, from facts too well authenticated to be denied and too irrefragable to be refuted, a change is certainly taking place in the sentiments of medical men on this subject. The study of epidemic diseases on philosophical principles is of comparatively late occurrence: formerly, physicians were content with noting their progress and detailing their symptoms, without attempting to explain their laws or trace their origin; but a better state of things exists at present, and in consequence of the unwearied exertions and philanthropic researches of many of our brethren, much light has been thrown on this intricate subject, and we have a right to look forward with confidence to an era when the mists of prejudice and error which now envelop it will be entirely dispersed.

It has been unfortunate for the advancement of our art, that we are constantly called upon to combat opinions and errors which have originated from the profession itself; there is scarcely a theory, however absurd, or an opinion, however false, relating to medical subjects, which have not once been considered as truth; these in progress of time have been discarded by physicians, but still remain as dogmas among the generality of mankind. The multitude are more apt to adopt than to form an opinion; and it is a just observation of a late writer, "that it is easier to think from other people than from one's own mind; the opinions of men are like their dress; they are made by another person, but once adopted and worn, become property;" but error thus engrafted on mankind, becomes every day more fixed, and as it is transmitted from age to age, acquires greater strength, and at last entwines its roots so firmly and pertinaciously with all our opinions and sentiments, that it becomes almost impossible wholly to eradicate it.

England and the United States are, we believe, the only nations of Christendom in which a code of laws for the preservation of the public health, does not form a material part of the jurisprudence of the country; we have, it is true, in all our maritime towns, quarantine regulations to guard against the introduction of pestilential and contagious diseases from abroad, these laws also include a few provisos for the removal of any sources of infection that may exist independently of those arising from shipping, but here they end, both countries are alike destitute of a general medical police, which of all laws is the most onerous and unpleasant, and fortunately from the habits and character of the people, it would be wholly unnecessary.

All our quarantine regulations are founded on the assumption that epidemic diseases are dependent on a specific contagion, and hence are intended to prevent the importation of a virus, but it must be admitted by the most strenuous adherent of the doctrine, that they are extremely deficient in their operation, and are not capable of fulfilling the intentions for which they were instituted; as a proof of this, we need but advert to the fact, that although we have had quarantine laws in Philadelphia since 1700, yet the yellow fever has made its appearance in 1746, 1747, 1748, 1751, 1762, 1793, 1797, 1798, 1799, 1802, 1803, 1805, 1818, 1819, 1820, 1825: in fact, as is observed by MACLEAN, "upon every principle then, whether of the utility or perniciousness of sanitary laws, the subject remains in a most unsatisfactory state."

We are by no means advocates, in the present unsettled state of our knowledge on the subject of contagion and of epidemic diseases, for the abolition of quarantine laws; indeed, should it be proved most incontestably that we have never derived the yellow fever from abroad; still a due observance of certain precautionary measures at quarantine stations towards all vessels arriving during the summer months from tropical climates should always be adopted and strictly attended to, for although the disease may not be contagious and never imported into our towns in a developed form, still there can be but little doubt but that many of our pestilences have been satisfactorily traced to shipping, and in some instances where the vessel had arrived from a port in which the fever did not prevail at the period of her departure, and whose crew were all landed in a healthy condition. By the mode pursued at present with some variations in all our seaport towns, the only real way in which importation can take place is in a great measure overlooked; in the city no vessel is detained at quarantine or cleansed, unless she arrives from a port at which sickness prevails, thus acting exclusively on the idea that the fomites must exist in a concentrated form before any danger is to be apprehended, and thus leaving many abundant and prolific sources of disease wholly unnoticed, for as we have before observed, we have instances where the fever has originated from shipping in cases where they had arrived from a healthy port, and without having had any sickness on board.

Dr. Maclean, who has lately published a work on the "Evils of Quarantine Laws, and the Non-existence of Pestilential Contagion," has gone much further than our knowledge respecting contagion will warrant. The ground work on which he has erected his speculations is perfectly good, yet his deductions are, in many instances at least, assumed. When he attempts to prove that the belief in the doctrine of contagion is untenable and fraught with danger, we cannot deny the validity of his arguments, but when he insists on the total abolition of all sanitary laws, his arguments although exceedingly ingenious, must fall to the ground, as they are but based on an unsubstantiated hypothesis; nevertheless, we are much indebted to him for his researches, as it has induced a series of investigations on this most important question from which valuable results may be expected.

But we shall leave this part of the subject for the present, and proceed to an analysis and history of our health laws as far as we have been able to obtain them. We are conscious that there are many deficiencies in our quotations from the laws of other cities, but the only documents to which we have had access, have been their respective city ordinances and printed health laws.

The first enactment of a law for the protection of Philadelphia from contagious diseases, appears to have been passed 12th William 3d, 1700; it provided that no unhealthy vessel coming from an unhealthy or sickly port, should come nearer than one mile to any port within this jurisdiction, without a bill of health, or land any person without permission, under a penalty of one hundred pounds. This law remained in force until 16th George 2d, 1742, when an act was passed, authorizing the purchase of Province Island, and the erection of a lazaretto thereon, and vesting the same in trustees. In 1774, the colonial assembly passed an act, which embraced several new regulations, which were in 1803 annulled, and the legislature created a Board of Health under that title, with a code of laws for their government, by which the governor was directed to appoint five persons to act as members of the board, with a salary of five hundred dollars each, viz: three from the City, one from the Northern Liberties, and one from Southwark, not more than two of whom were to be physicians. Some objections having been made to this part of the law, the legislature again took up the subject in 1818, and altered the [illegible] in several of its features, the principal of which was, that the Board was thereafter to consist of eleven members, six of whom were to be appointed by the councils of the city, two by the commissioners of the Northern Liberties, one by the commissioners of Penn Township, one by the commissioners of Southwark, and one by the commissioners of Moyamensing; since which time Kensington having been incorporated, also elects a representative, so that at present the Board consists of twelve members.

In Baltimore the health law of 1826, provides for the appointment of three commissioners of health, who, with a consulting physician, form the board. The health law of New York does not specify the number of members of the Board; it is to consist of such persons as the mayor and councils of New York shall appoint. The Charleston board is composed of thirteen commissioners chosen by the city council; in Boston the corporation of the city appear to act as a Board of Health.

The powers granted to the boards are necessarily very great, although in some instances they fall short, and hence are inadequate to produce the good effects that were intended.

Those granted to the Philadelphia board, are

> "The said board shall have, and hereby is vested with full power and authority to make general rules, orders, and regulations, for the government of the lazaretto, and the vessels, cargoes, and persons there detained under quarantine, and of the Health Office and public hospitals, and for the mode of visiting and examining vessels, persons, goods, and houses, and shall also have power to appoint such officers and servants as may be necessary at the Health Office, Lazaretto, and the City Hospital."

The lazaretto is also vested in them with full power to erect such buildings, and make such enclosures as to them may seem fit; also, whenever they shall receive information that any malignant or contagious disease prevails in any port or place in the United States, they may prohibit all communication with such place, except under such regulations as they shall direct, and remove any person coming from such a place, to a spot by them directed, to remain there for a time not exceeding twenty days; also to remand all vessels coming up to the city, if thought dangerous to the health of the community; they may also order off all vessels from any part of the city when said spot shall be infected with a contagious disease, and when a malignant disease appears in the city, to take such steps for preventing the spreading of the contagion by forbidding all communication with the sick, and other means as shall be most conducive to the public good—patients removed are to be taken to the city hospital—to defray their expenses in cases of malignant fever, they are authorized to levy a tax of fifteen thousand dollars with the consent of the mayor, two aldermen, and two justices of the peace. The board have also the power to order the removal of all nuisances at the expense of the owners of the property on which the nuisance may exist.

The powers granted in the New York board appear to be all specific, and do not embrace as wide a scope as those bestowed on that of Philadelphia; for although they have the charge of the quarantine establishment with power to make certain regulations, yet in cases of a malignant disease existing at other ports, the proclamation forbidding intercourse with such place must come from the governor of the state, the mayor of New York, or the recorder.

The board can send vessels down to the quarantine ground, if they should be thought prejudicial to the health of the inhabitants, and continue the detention as long as they shall deem necessary. As is the case in Philadelphia, the marine hospital at the quarantine ground is vested in them. They also have the right on the appearance of a contagious disease, to prevent all communication with the sick; they can also appoint health wardens, whose duty shall be to visit and examine houses, &c. and if found in a filthy condition, to cause them to be cleansed; the board also have power to fence up any street, &c. when from the prevalence of a contagious disease they shall deem it expedient; all nuisances are to be removed by a process of common law.

In Baltimore the duties of the board are more extended in many particulars than in either of the last mentioned cities, as they also act in the capacity of city commissioners, and have the superintendance of the cleansing of the streets, &c. With respect to removal of persons in cases of contagious disease, they have very great powers, as they can order any one to be removed under a penalty of twenty dollars for every twenty-four hours such person shall remain after the order shall have been served; they can also fence in all districts in which a malignant fever appears, they have also a power which should be given to all the Boards of Health, namely, that of causing any wharf or dock which they may deem prejudicial to the health of the city to be either repaired or cleansed out; whilst alluding to the subject of wharves, we would also mention that no wharves in Baltimore can be erected or repaired except in stone; this regulation is of extreme importance, and should be adopted in all our towns.

In Charleston much the same powers are granted.

Not having access to the health laws of Boston, we are unable to say more than that the powers appear to be vested in the mayor and corporation of the city, who regulate the quarantine of vessels, and other matters connected with the general health of the city.

They appoint in June, annually, five physicians, to whom, on any alarm of small-pox, or other contagious disease, the mayor is to apply for advice; the mayor and aldermen also have power to remove, or cause to be removed from any part of the city any person labouring under a contagious disease, provided a majority of the physicians shall deem it necessary; they also order any houses to be vacated for such time as the physicians shall think expedient, and the safety of the inhabitants may require.

It is evident from the above condensed view of the general duties of the different boards, that they are endowed with a despotic power in some instances, and are deprived of it in others, where, if it should ever be granted to corporate bodies in a republican government, it would be most conducive to the public good. What we particularly allude to, is removal of persons affected with contagious and malignant diseases, either to a hospital, or to some place where the disease would not be likely to prove injurious to the community at large. In the case of small-pox this would be highly important, and would give a Board of Health an almost complete control over the disease. As the law at present stands, both in Philadelphia and New York, no one can be removed without their consent being obtained; the boards, it is true, have the power of prohibiting all intercourse with the diseased, but there are so many circumstances which must necessarily contravene the full enforcement of such a regulation, that it must generally prove ineffectual. Baltimore and Boston have given such power to their boards, as we have before observed, under certain penalties; this power, which certainly does not militate against the rights of our citizens, might be advantageously granted by the legislatures of the different states to the boards under their control.

We will now proceed to the subject of quarantine as ordered in the different cities we have noticed; this we conceive to be the most defective part of our health regulations, as being onerous and oppressive to the mercantile interest, and not fulfilling the intent for which the laws, have been established. There is no inquiry of more importance than that of the measures to be adopted to guard against the introduction of contagious, and malignant diseases: experience has shown, that the mode now adopted in all our seaports, being directed wholly against a specific virus, cannot be effectual in preventing the introduction or origin of yellow fever, as it may arise not only from foreign but domestic sources, and in both instances appears as a partial or a general epidemic not dependant on contagion properly speaking, either in its origin or subsequent progress. It may be asked, if the disease is not contagious, how then can it be traced to shipping, or how can vessels arriving from certain climates be considered as causing the disease? This question may be readily answered; from the accumulation of foul and contaminated air contained in their holds, arising either from a putrefaction of part of their cargoes, or the filthy condition of their lining and timbers, to both which circumstances vessels from tropical climates are extremely liable from the nature of their cargo, consisting for the most part of vegetable matters, as sugar, coffee, cocoa, &c., and the heat to which they are necessarily exposed; should they be in a leaky condition, and thus damage part of their loading, putrefaction and its consequences, the evolution and extrication of great quantities of deleterious and offensive gases, must inevitably ensue, which being confined and concentrated from the closed state of the hold, may not affect the crew during the voyage, but on their arrival and subsequent opening of the hatches, are poured out in streams, and constitute a prolific source of disease; this appears to have been the case with the ship Deborah, to which the origin of the yellow fever in 1793, was distinctly traced, and in the Ten Brothers at Boston, which caused the fever of 1819, in that place. The fever of 1799, in Philadelphia, was also proved to have originated in the first instance from the sloop Mary, but under somewhat different circumstances, although still from the same causes; in this case the vessel landed her cargo perfectly sound, nor were any of her crew sick during the voyage, when however the cargo was discharged, she was washed out and her hatches closed, but there still remained a quantity of coffee in her hold, which exposed as she was at the wharf to a high temperature for about three weeks, ran into putrefaction, and evolved an immense quantity of noxious vapour; this became so offensive that she was ordered to be ventilated and cleansed, the consequence of the escape and dispersion of this exhalation was, that many persons in the neighbourhood were seized with symptoms of yellow fever. In this case there is unequivocal testimony that the disease does not require a specific virus for its origin, and that it may arise from causes wholly unconnected with contagion, and which strict regulations properly enforced would always remove. But even under such circumstances, it appears to require a certain state of the atmosphere before the fever can be generated, as there is scarcely a year in which the above mentioned sources do not exist, yet all are not marked by the visitation of pestilence. From a paper given in the Eclectic Repertory, derived from Poulson's Daily Advertiser, it is shown that the yellow fever has never prevailed to any extent in Philadelphia, unless the mean heat of the thermometer at 3 P. M. during the summer, and especially during the months of June and July should be as high as seventy-nine degrees; there may be it is true a few sporadic cases, but the disease did not spread. Another state of things may also prevail which may give rise to it; from domestic sources there may be a predisposition to the disease, in the inhabitants of a port which only requires some exciting cause to develope, this may be furnished by a vessel arriving from a tropical climate, the state of whose cargo or condition of whose hold, although not sufficient in themselves in a healthy and uncontaminated atmosphere to cause disease, yet when combined with sources of disease on shore, may thus like a spark to a train of powder, induce the immediate development of pestilence. From what we have said it must be evident that we consider that the great object to be enforced in quarantine regulations, is to prevent the introduction of noxious matters from vessels or their cargoes; therefore no vessel coming from a warm climate, or having cargo on board which from its nature being liable to putrefaction, should be permitted to approach the city until she had been thoroughly cleansed and purified, and any part of her cargo that was damaged, detained until the approach of cold weather precluded all fear of its proving a source of disease. As will be seen, the quarantine regulations respecting passengers are extremely strict and calculated to oppress many who are little able to bear the additional expense the detention they experience necessarily entails on them. If facts and reasoning are to be relied upon as regards the contagion of yellow fever, there cannot be a shadow of reason for detaining them at a quarantine establishment; should they even be so unfortunate as to be attacked by disease, there is but little danger of their communicating it to others; we can even conceive that in some instances passengers taken ill of yellow fever after their arrival from a warm climate, in our city, during the summer season, may have been attacked by the disease even while none of the inhabitants were affected, from their not having been accustomed to those sources of disease, to which those residing on the spot for some time are wholly innoxious from habit; that this takes place in southern ports, is too notorious to need a comment; every stranger arriving at New Orleans is considered as obnoxious to the attacks of yellow fever till he has been acclimated, or passed one summer there; even this in many cases is not sufficient to accustom his constitution to certain agents which appear to have little or no effect on the natives of the place.

The health law of Philadelphia, after specifying the fees to be demanded from vessels arriving at the port, and the duties of the officers of the Board, goes on to state those cases in which vessels are to be detained. "If it shall appear upon examination, that the ship or vessel came from a port or place at which a malignant or contagious disease prevailed, such vessel shall be detained at the Lazaretto for such time as the Board of Health may deem necessary, not exceeding twenty days. And the Board of Health shall determine and direct what measures shall be pursued to cleanse the vessel and cargo, purify the clothing and baggage, and restore the health of diseased persons on board." Certain goods, however, are permitted to be brought to the city in lighters, such as wine, sugar, rum, &c. At the expiration of the twenty days, if none of the crew or passengers have been attacked with a malignant or contagious disorder, the Board may allow the vessel to proceed to the city, but in cases where sickness has prevailed to a limited extent, either during the voyage, or since her arrival at quarantine, the vessel shall be detained such further time as the Board shall deem necessary; this in general has been twenty days from the sickness or death of the last person attacked; when, however, there has been much sickness on board, the vessel is to be discharged, and the cargo, except such articles as have been specified, shall be stored, the Board may however grant permission for the whole of the lading of a vessel thus detained to be brought to the city in lighters; the vessel in cases where she has been in a filthy and offensive condition, is not permitted to come up to the city during the quarantine season, but must take her outward cargo on board at the Lazaretto.

The vessels which are subject to detention are—1. Those from a foreign port at which sickness may prevail, or those detained under a special order of the Board.—2. Vessels from a port in the United States which have only touched there on the voyage from a foreign port.—3. Vessels from the Mediterranean; in the latter case should any of the crew or passengers have been attacked with the plague during the voyage, the vessel must be unloaded and her cargo cleansed, and no part permitted to enter the city for twenty days.—4. All vessels from infected ports in the United States—by the supplement of 1821, all vessels coming from the southward of Cape Fear, are subject to detention at the Lazaretto, and all vessels having on board vegetables, fish, or hides, are not permitted to discharge their cargo until a permit shall be obtained from the Board of Health, and also that within forty-eight hours after the discharge of every vessel, the captain, owner, or consignee must report the same, and the Board, if they think proper, shall have said vessel cleansed and purified.

From a fear of extending this paper beyond our limits, we have only given a general view of the operation of the quarantine law in this port, avoiding as much as possible entering into the particular rules, regulations and penalties, detailed in the law, under each of the heads we have noticed: it will be perceived that the law is very general, and thus leaves the particular application of it to the Board: in this it differs materially from almost all the sanitary laws of Europe, which are extremely minute in detailing all ports to which the restriction is to extend, thus defeating in a great measure any good which might arise from the restrictive system, for it might often occur, that whilst not one of the interdicted ports was afflicted by disease, vessels would arrive from others on which no restriction was laid, and which, notwithstanding, were devastated by pestilence: thus for instance, in the case of small-pox, which occurs in ports never considered as liable to contagious diseases, and hence are unrestricted. vessels might arrive with the disease on board, and in a short time affect a whole community—that such has been the effect even under the wide scope of our law there can be no doubt; many of the first cases of last spring were distinctly traced to emigrants from Nova Scotia, where it had prevailed to a considerable extent. We will now compare the laws of our cities on this point.

By the New York law, "every vessel arriving from any port, island, or other place, in Asia, Africa, the Mediterranean, America lying south of Georgia, or from any of the West India, Bermuda, or Western islands, and all vessels from foreign ports having on board forty or more persons, and all vessels on board of which any person shall have been sick, or died while at a foreign port, or on the homeward passage," may be quarantined at any time of the year, and if arriving from the West Indies, or from America south of St. Mary's in Georgia and north of the equator, or from any port or place in the continent of Africa, or islands near the same, between the 31st of May and 1st of October, shall be detained at least two days at quarantine, or as much longer as the health officer shall deem necessary, and the vessel ventilated and cleansed, &c. After the officer shall permit her to depart she is not to come within three hundred yards of the city, until she shall have been again inspected by a person appointed for that purpose by the Board of Health. The law also enacts "that every vessel arriving in the port of New York, from any port, island, or place, in the Mediterranean, in Asia, in America south of the equator, or from the Madeira, Canary, Cape de Verd, Western, Bermuda, or Bahama islands, between the 31st of May and 1st of October," shall remain two days at quarantine, and be cleansed and purified, and when released, shall as in the preceding instance, not approach the city within three hundred yards, except specially permitted; all vessels from the southward of Cape Henlopen are also subject to quarantine, or from ports north of that when they have foreign merchandise on board; all vessels coming from a port in which yellow fever existed, or on board of which any person has been sick or died, are to be detained thirty days, and twenty days after the discharge of her cargo, the cargo to be ventilated and cleansed, and then on an examination by the agents of the board may be permitted to be landed. The crew and passengers must also remain twenty days from their arrival, or fifteen after the last sickness or death on board. The restriction on passengers is also extended to all persons from other ports or places in the United States, America, or West Indies, south of St. Mary's in Georgia, who are not to enter the city under twenty days from the time they sailed. Whenever the governor of the state, the mayor of the city, or recorder, shall receive information of the prevalence of a contagious fever at any place, he shall issue a proclamation prohibiting vessels from coming from such place, and also cut off the intercourse by land.

In Baltimore, the quarantine law is more general in its operation than in Philadelphia. It provides "that all vessels arriving from foreign ports or coastwise, between the 1st of May and 1st of November, shall bring to below the city, and there remain until visited by the health officer," who shall either permit her up to the city, or if there has been sickness on board, or other circumstances which he may consider dangerous to the health of the city, shall order her to the Lazaretto, there to be discharged, cleansed, and purified.

The Boston law enacts, "that from and after the 15th of June annually, and until the 15th of September in each year, a quarantine shall be had on all vessels, &c. that come within the harbour of Boston on board of which any person shall have died or been sick of any infectious or contagious disease during the passage to Boston, or which are from, or have brought their present cargo, or part thereof, from any port or place in the West India islands, or from any port or place within the tropics, except from beyond the Cape of Good Hope, or Cape Horn, or from any port or place within the Straits of Gibraltar, or from any port or place wherein infectious or contagious disease doth prevail, or recently hath prevailed." It also provides, that vessels may be quarantined, coming from any place in the United States on board of which any person shall have died or been sick of an infectious or contagious disease. The sole control of all vessels at quarantine, is vested in the resident physician, who is to report daily to the mayor and aldermen.

Such are the quarantine regulations in some of the principal cities of the United States. We have been obliged to condense them as much as possible, in order to be enabled to touch on some other points connected with our sanitary laws. It will, however, be seen, as we have observed on entering on this subject, that they are all founded on the assumption of yellow fever being contagious, or capable of being imported in a developed form; they however differ materially in their severity and operation; that of New York, being the most specific as to the places and objects towards which the quarantine is to be exercised. The Boston and Baltimore laws give a wide scope to the officers acting under them, and if carried into effect in a proper manner, will do every thing that can be expected from quarantine regulations; in fact, to obtain those benefits from restrictions on vessels which is attempted by our different laws, every vessel, and from whatever port, should be visited and examined at a quarantine station, and if found filthy and offensive, she should be detained; but in a clean and healthy condition, there can be no danger to be apprehended in permitting her up to the city, even coming from what are considered as infected ports.

The only points connected with our health laws, we shall now notice, are those regulations to guard against any domestic sources of disease, and the plans adopted to prevent the spreading of an epidemic, when it unfortunately has made its appearance; these are of extreme importance, and merit the utmost attention, as in fact, much more is to be expected from them than can be effected by the present mode of quarantine. The health laws of each of the cities provide for the removal of all nuisances existing within the precincts of their authority which may be considered as injurious to the health of the inhabitants. There is, however, one important source of noxious exhalations which is overlooked in all the health laws to which we have access—we allude to grave-yards within the limits of our cities. This calls most imperiously for the interference of our constituted authorities. In our city many of them are becoming extremely crowded, and require to be closed. We are aware that Diemerbroeck and Bancroft have satisfactorily proved that the effluvia arising from the decomposition of animal matters are not capable of generating an epidemic disease, but at the same time there can be but little doubt that it tends to the deterioration of health, and should in all cases be either removed or destroyed by such means as will diminish their evil effects on the human system. Dr. Pascalis, of New York, has given an able and learned exposition of the dangers arising from the practice of interments in large cities, to which the attention of different Boards of Health cannot be too strongly directed. Although we do not agree with the learned author in all his conclusions, yet we feel perfectly convinced of the truth of his general argument, and would rejoice to see an entire prohibition of all places of interment, at least within the populous part of the city. It is true that the expense and difficulty of transporting the dead to a distance are objections, but still in this, as in all other circumstances connected with the public weal, private convenience should give way to general policy.

The last point we shall notice, is that of Vaccination. This, in most of our cities, does not come under the cognizance of the Board of Health, although the care and responsibility of preventing the ravages of the small-pox forms by no means an unimportant part of their duties. In Philadelphia, the Mayor appoints a Vaccine Physician, with four collectors of cases; his duty is to vaccinate gratuitously all persons who are unable to pay for this operation; this mode is also pursued in the districts. In Baltimore, the Board of Health appoints six physicians for this purpose. In the other cities we are ignorant what plan is pursued, but as we find no allusion to it in their respective health laws, we take for granted that, as in Philadelphia, it does not come under the cognizance of the Boards of Health. It must appear evident that this division is hurtful, and in some measure prevents the usefulness intended by the framers of the law. From the laws existing in all our towns, physicians report all cases of small-pox, as well as of contagious fevers, to the different boards; hence these bodies would at once be enabled to take measures to check the disease, by adopting more rigorous and effective modes of extending the benefits of vaccination by appointing additional physicians and collectors of cases. This applies more forcibly to Philadelphia than to any other of our towns, as from the number of corporations composing the government of it, it is almost impossible to act with unanimity and decision on a point which, to be effectual, must be general. This can only be effected by the Board of Health, which is endowed with powers which extend not only over the city, but also over the districts. By placing this duty in their hands, the system would be uniform throughout, and prevent the clashing of interests which, from the present plan must necessarily ensue. It might be objected that it would increase materially the expenses of the Board, which are already great. This, it is evident, must be futile, as if even the Board should be obliged to levy a tax for the purpose, it is one which, as tending to the safety and welfare of the community, would be most cheerfully acquiesced in; added to which, it surely would be perfectly immaterial whether the money is raised for this purpose by the Board of Health or by the constituted authorities of the city and districts. In fact, viewing it in every light, we are convinced that it would be advantageous to delegate the duty of extending the benefits of vaccination to the Board of Health.

Before concluding this brief analysis of our sanitary laws, we will venture to throw out a few suggestions as to what should constitute one which would act with more certainty and effect than any which we have at present in operation in the United States. Each that we have perused contain some salutary provisions which are wanting in the others, and most contain clauses which, to say the least of them, are ineffective in their operation, and only tend to harass commerce without attaining the end for which they were enacted. At the same time, we are doubtful if any laws, however perfect they may appear in theory, will ever prevent the recurrence of the yellow fever in our maritime cities; the sources from which it may arise are so numerous and diversified, and depend so much on circumstances over which we have no control, that it is next to an impossibility to guard against them all, however strict may be the laws, and however vigilant the Boards of Health. But, although we may not be able to prevent its origin, there can be but little doubt but that a stop can be put to its general prevalence; this has been most satisfactorily proved both in this city and in New York. Let it arise from whatever cause, whether from sources existing in the town, or from shipping, it always commences at a point, and gradually extends itself as the atmosphere becomes contaminated, subjecting all who are exposed to its deleterious effects to an attack of the disease; should no check be put to its progress, the circle gradually increases, and finally spreads to such an extent, that all human means are insufficient to stay its increase, except a total abandonment of the infected district; but on its first appearance, should this space be cleared of its inhabitants, and all access to it prohibited, until it had been thoroughly cleansed and purified, and the occurrence of frost had entirely removed all infection, it may be completely commanded and subdued.

The health laws of the United States should be identical and consentaneous in their operation: as these regulations can never emanate from the government of the United States, being by right under the jurisdiction and control of the state sovereignties, the only mode to arrive at this desirable end would be a law framed by delegates from the different states, and enacted by their respective legislatures, whose provisions should be the same as far as the situations of the places would allow.

All vessels from tropical climates, whether from healthy or unhealthy ports, should be obliged to stop at quarantine until they had been cleansed and ventilated, and the state of their cargoes examined: if these are found in an unsound and putrifying state, they should be discharged, and the unsound parts separated and detained, whilst the sound, after having been purified, might be permitted to proceed to the city. After a vessel has been discharged in port, she should undergo a thorough and complete ventilation and purifying under the inspection of an officer appointed for that purpose.

Passengers should be permitted to leave quarantine, unless when labouring under disease.

The boards should be endowed with full powers, on the appearance of a contagious or malignant disease, to remove all those attacked, and if necessary, to vacate and prohibit all intercourse with that part of the town.

They should have the power to cause to be removed all nuisances, which might tend to the deterioration of the health of the city, and in such cases should have a lien on the property for any expenses they might incur; they should have the right to prohibit interments in the populous parts of the city, especially during the summer months. The law should also prevent the erection or repair of any wharf or dock, except with stone; the wharves should also be paved and regularly cleansed, and the docks should be of such a depth as never to be uncovered during low tides.

It will be perceived that we have proposed in the above, that the boards should be endowed with almost unlimited powers. A health law to be effectual must be arbitrary, and admit of no dispute. If such enactments are to do any good, they must be rigorous, as half-way measures only tend to oppress, without effecting the proposed beneficial ends. But a great deal depends upon the confidence with which the public may repose in these institutions. The office of guardians of the public health, necessarily entails on its holders many unpleasant and onerous duties; these are often aggravated by the attempts which are made to cast an odium on their proceedings, and to thwart them in the discharge of the trust reposed in them—at the same time it is also the duty of the different boards to have no concealments from their fellow citizens, but to act with openness and candour. By such a line of conduct they will always secure to themselves the thanks of the humane and unprejudiced.

R. E. G.

BIBLIOGRAPHICAL NOTICES.

1. *Lectures on the Operative Surgery of the Eye; or, an Historical and Critical Inquiry into the Methods recommended for the cure of Cataract, for the Formation of an Artificial Pupil, &c. &c. &c. containing a new method of Operating for Cataract by extraction, which obviates all the difficulties and dangers hitherto attendant upon that operation: being the substance of that part of the author's Course of Lectures on the Principles and Practice of Surgery, which relates to the operations on that organ.* By G. I. GUTHRIE, Esq. Second edition, with seven Explanatory Plates. London, 1827, pp. 554.

A complete treatise on the diseases of the eye has long been desiderated. We have some excellent essays, on several of the affections of that organ, but there is no work, at least that we have met with, in which is embodied our present knowledge on the subject of ophthalmic diseases. The work of Mr. Travers is valuable for its originality, and for containing opinions derived from a very ample and extensive experience, but without noticing minor faults, it does not embrace a full view of the subject, an almost entire silence being preserved with respect to the labours of others.

The treatise of our countryman, Dr. Frick, is an excellent compilation, and is well adapted for a manual for students, but it is too brief to satisfy those who have entered beyond the threshold of the science.

The manual of Dr. Weller, of Berlin, of which we have a translation by Dr. Monteith, of Glasgow, comprises an account of almost every disease of the eye and its appendages, and possess considerable merit, but it is still briefer and more unsatisfactory in its details than the work of Dr. Frick.

The treatise of the venerable Scarpa, for an acquaintance with which we are indebted to a translation by Dr. Briggs, is certainly, as is every thing that he has written, valuable; but a few only of the diseases of the eye are noticed in it, and our knowledge of these has advanced considerably since it was written.

In France they have the treatises of Demours and Delarue. The former is chiefly remarkable for the beauty of the plates; the text possesses no particular value, a large portion of it consisting of long, tedious and uninteresting details of cases. Delarue's book is far behind the present state of the science: indeed, the author appears to know little of what has been done since the days of Maitre-Jean, St. Ives, Guerin, &c.

The work, the title of which stands at the head of this article, contains an account of those diseases only of the eye, which require surgical operations, but in relation to these, it contains a mass of valuable information,* and copious reference to authorities, the collection of which must have cost much labour and research.

The author announces that he intends shortly to publish a second work, t comprise the substance of that portion of his lectures, which relates to the diseases of the eye with their medical treatment. If this proposed work, equal in value his former one, of which indeed it may be considered a continuation, it will fill an important hiatus in medical literature.

---

* The author informs us, that his book contains more information on the subjects about which it treats, than any other work extant; an assertion which we believe to be true, but we confess we should have been better pleased had we been allowed to make the discovery ourselves.

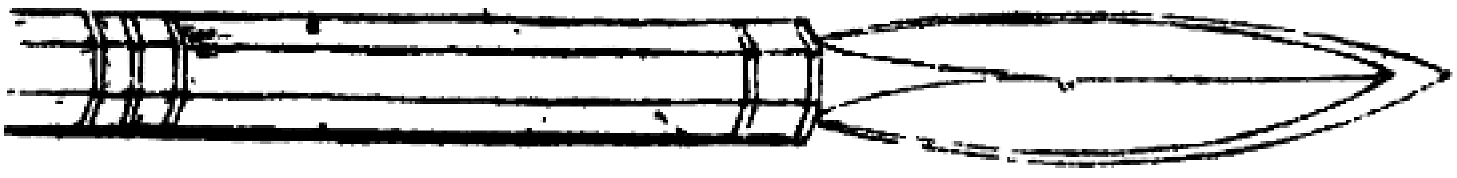
As the first edition of Mr. Guthrie's book has been for some time before the public, we shall not enter into any formal notice of it, but merely extract the account of a new method of operating for cataract, which is one of the many additions made to the present edition; at the same time strongly recommending the work to those who take an interest in ophthalmic diseases.

That the reader may understand Mr. Guthrie's new operation, it is necessary to premise, that in order to avoid some of the difficulties attendant on the division of the cornea, Dr. Jäger, of Vienna, son-in-law to Professor Beer, some time since invented a double knife, one blade of which is smaller than the other, and attached to it by a button screw, yet capable of sliding on it, upon pressure by the thumb. This knife he introduced in the same manner as Beer's, and carried it across the eye till it reaches the opposite side of the cornea, the smaller blade is then pushed forward so as to penetrate the cornea, while the larger keeps the eye steady. The operation is then completed in the usual manner.

This instrument has led Mr. Guthrie to construct another, which he considers more perfect, and "to be capable, not only of preventing nearly all the difficulties and dangers which occur in the extraction of the cataract, but of obviating them when they have occurred, either from accident or from any defect in the operator. It is a double instrument, one part being a cataract knife, of the shape of Wenzel's, the other a silver blade of the same form, but larger and blunt. The sharp steel knife is attached to the silver blade by a button screw in the handle, which admits of the knife being pressed forward in the same manner as Jäger's, whilst it is so nicely and closely fitted to the silver blade as to form one instrument, neither the point nor the edge catching when the finger is pressed along it. An opening is to be first made in the cornea, with a common large Wenzel's knife, (which I prefer to Beer's,) and of such a size as to admit the double instrument, being the first step of the punctuation: the knife being withdrawn, the aqueous humour escapes, and the iris is pressed forwards against the cornea, the eyelid being allowed to fall over it. If any protrusion of the iris should take place at the opening in the cornea, the protruded part will return to its place on gently rubbing the eyelid with a silk handkerchief, a piece of sponge, or the finger. The eyelid is now to be raised, and the double instrument introduced at the opening, the silver blade being next the iris. The silver point being larger than the steel one, easily raises the cornea and presses back the iris, so that by alternately raising and depressing the point of the instrument, it is readily carried across the eye in front of the iris and pupil, until the silver point touches the inside of the cornea, either immediately opposite the point of entrance, or as much above or below as the operator may think fit. The thumb which has hitherto been resting on or near the button screw, is now made to press it forward, and to protrude in consequence the sharp steel blade through the cornea, when the instrument readily cuts its way out, and completes the section of the cornea.

The principle on which this instrument is used, is diametrically opposed to all others. The great object of Wenzel, Beer, Jäger, and all operators, is to prevent the evacuation of the aqueous humour, until the knife has passed across the eye through the cornea at the opposite side, and has begun to cut its way downwards. The great object of this method is to evacuate the aqueous humour as a preliminary step to the operation, and to bring the eye to that state which renders the operation recommended by those surgeons impracticable. The great difficulty they have to encounter, is the falling forward of the edge of the iris, at the moment the aqueous humour is evacuated, and the necessity which then arises for bringing the knife out before the incision is completed, or of wounding the iris. It is true, rubbing the cornea, as directed by Wenzel, will sometimes cause the iris to move from before the edge of the knife, but this is only when the punctuation has been well made, for it will not always do it, and the knife must then be withdrawn, and the incision completed with the scissors or blunt-pointed knife, the edge of which often injures the iris, and always cuts with difficulty; so that three or four cuts will be required, leaving the general edge of the cornea uneven and indisposed to adhesion. In my operation, the double instrument not being introduced until the eye is quiet after the first attempt made upon it, the iris has little disposition to fall forward, as it is termed, or turn the edge of the knife, because this movement of the iris is caused by the evacuation of the aqueous humour and when it is disposed to do so from other causes, it is prevented by the blunt or silver blade, which keeps it back in its place. The unsteadiness of the patient's eye only delays, but does not otherwise interfere with the success of the operation, neither does the toughness of the cornea, both of which are often serious impediments in the usual method of extraction, as preventing the perfecting of the incision by the single introduction of the knife, and rendering the introduction of the round-pointed knife necessary to enlarge the opening to a sufficient size for the passage of the lens through it. In the common method of operating it is dangerous to complete the operation by one incision, on account of the spasmodic action of the muscles, which often expels the lens and vitreous humour with great violence. By my method this sudden spasmodic action has had time to subside, with the evacuation of the aqueous humour, by the formation of the first opening and the subsequent falling of the lid, and the operation may therefore be completed at once with little or none of this danger. Upon the whole, I consider that this instrument, simplifies the operation in a remarkable manner, and renders one of the most difficult operations in surgery, one of very easy performance."

Fig. 1.



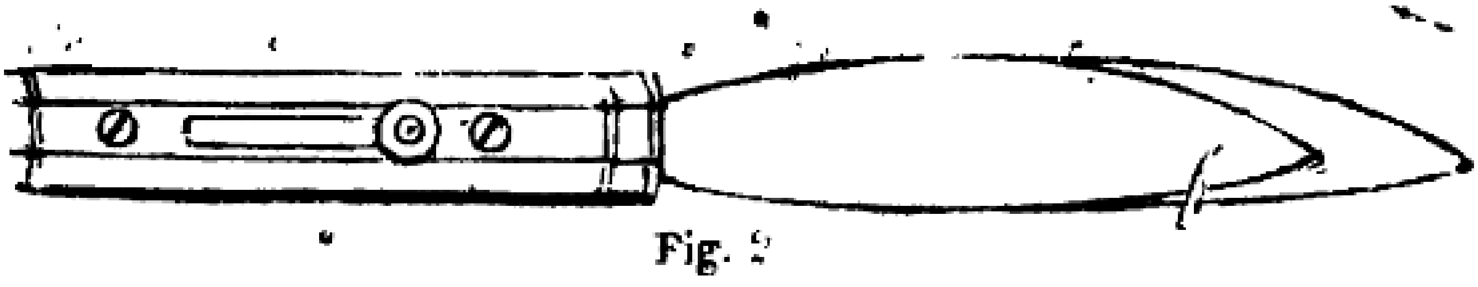


Fig. 2

The preceding figures represent Mr. Guthrie's double knife, one blade silver the other steel, only a portion of the handle however is represented, its whole length is three inches.

Fig 1. shows the steel knife guarded by the silver blade, the latter projecting beyond the former.

Fig. 2. shows the knife with the silver blade uppermost, the former projected beyond the latter.

Neue Zuverlässige Heil-art der Lustseuche in allen ihren Formen · bekannt gemacht, von Karl Heinrich Dzondi, Professor an der Universität zu Halle. mit zwei Tafeln in Steindruck. Halle, 1826, 8vo. pp. 120

Judging by his enthusiasm, Professor Dzondi is fully persuaded of the importance of his "new and infallible cure for syphilis in all its forms," and were we not in possession of numerous and positive proofs that his views are in many respects inaccurate, we might be persuaded that his deductions were based upon sufficiently extensive and accurate observation, instead of being rather the fancy-nursed offspring of prejudice, such is the warmth of his zeal, and so positive the declaration of his conclusions. Were we sceptically inclined, we might even question the fact of his mode of cure being "new," and though willing to believe that in his experience it has proved "infallible," we think there are other views of the character of the disease quite as novel and fully as infallible, which tend to render his theory and practice equally unnecessary We will here subjoin a sketch of his statements, previous to any further remark

"In publishing this brief though true and exact statement of my method of curing syphilis radically, I herewith solemnly declare, that according to my best convictions, there has been no case of syphilis however protracted, which has not been radically cured by this method; or, whenever by an exact and scrupulous attention to my mode of treatment, the disease has been cured, and subsequently reappeared in any form, the reappearance has been owing to a renewed application of venereal virus. The chief foundation upon which this mode of treatment rests, and what renders it new, and unadvanced heretofore is that the cure of syphilis is not to be effected by quantities of mercury taken at different times, but by a sufficiently large administration of it at once.* I have purposely allowed ten years to elapse before the publication of my views until from actual results and the certain convictions thence received, I can declare that syphilis cured by this method never breaks out again."

It is altogether indubitable, that if syphilis be once *cured* by any method, it will not break out again except from the reapplication of venereal virus. The question as to the importance of any *specific* method is of more importance, and the experience of European and American surgeons equally shows that the treatment of syphilis according to general principles, is as successful and certain, as could be desired from any specific course: in proof of this, the recorded experience of Thomson and others in Europe, and of Harris, &c. in this country may be referred to.

We pass over the first chapter which contains the description of the diffe ent forms of the disease, and sketch from the second, the author's introduction to the details of his treatment, and a fuller exposition of his views as to the operation of the medicine.

---

* Dass eine hinreichend grosse Gabe auf einmal gereicht werde.

"All the forms of syphilis described in the foregoing chapter, may be radically cured according to the present treatment; all, I say, even to the oldest and most inveterate. By this method—*I speak from experience*—it is of no consequence how long a time the patient has been syphilitic! days, weeks, months, years—it is all the same! a pox which has raged in the system for twenty years, can be cured, even in the lapse of four weeks—and with the same quantity of medicine, radically cured, as one of but twenty days standing. Yes, such cases demand as long a treatment and as great a quantity of medicine, as one of twenty years continuance! a great, important and entirely new truth! a truth which I have been convinced of during ten years past.*

"During my travels in 1821–22, through France, Holland, England, Scotland, Ireland, and a great part of Germany, with a view of observing the different modes of treating syphilis, I found the principal part of the treatment the same. They introduced by internal or external means, different proportions of mercury, during a considerable period, into the systems of their patients, until the outward signs of the disease had disappeared; patients were then thought to be cured, and very little trouble was taken as to what might ensue from the activity of the medicine driven into the system. If the disease was obstinate, the treatment was as obstinately continued, for many months in the same or in larger doses. If this were insufficient, another preparation was selected, and the patient would be treated and maltreated with mercury for years.

"In most of the hospitals it was not remarked, that by means of a moderately high temperature the poison of mercury, a far worse poison than even that of the venereal contagion, would be re-introduced from the exhalations of the skin. In Paris I found in the venereal hospital that the window was left open all day in very cool weather, and in fact, by aid of a pulley it was constantly kept so; the poor patients were covered with only light woollen clothes, and could scarcely keep off the cold, much less procure gentle perspiration. None but the experienced observer can foresee the consequences of this condition!

"In England, under similar circumstances, calomel is administered in such large and powerful doses that a fearful salivation ensues, which sometimes terminates in inflammation and total adhesion of the mucous membrane of the mouth, so that the unfortunate patients, cannot throughout their lives, separate their teeth a straw's breadth from each other. I saw two instances of this kind in the Middlesex hospital under Charles Bell!

"Among all the methods, it is certain that the mode of inunction, (Louv ner*) is the most terrible, and is still not powerful enough to cure radically long-continued forms of the disease. I have cured twenty-one cases in which inunction had been unsuccessfully employed.

---

* That we may not be suspected of mistifying the Professor, we subjoin the original of the two last sentences—" Es kommt bei dieser Methode—*ich spreche aus Erfahrung*—ganz und gar nicht auf die Zeit an, wie lange ein mensch syphilitisch gewesen ist. Tage—Wochen—Monate—Jahre, dies ist ganz gleich!—eine Syphilis welche zwanzig, sage zwanzig Jahre im Kœrper Wuthete, kann in eben der Zeit—vier Wochen—und mit eben der Quantitat Arzney geheilt, grundlich geheilt werden als die welche erst seit zwanzige—Jahrige! Eine grosse wichtige, ganze neue Wahrheit! Eine Wahrheit welche sich mir nun seit zehn Jahren bewarht hat." p. 29.

"The most unpleasant of all methods is beyond doubt that of purging with large doses of calomel, by which treatment not one syphilitic patient is cured." p. 31.

We shall leave our author to arrange the latter statement with our countryman who claims to be the originator of this mode of treating syphilis, at least in the United States, and go on to other observations. We do not deem it necessary to delay for the purpose of examining his propositions concerning the poisonous qualities of mercury, or of the manner in which its influence displaces the venereal virus. It might under other circumstances be worth while to consider his declaration, that no syphilis can be cured without mercury, were it not that every one almost can satisfy himself of the contrary by making inquiries among our practitioners, or by referring to the published experience of most respectable surgeons.

Professor Dzondi believes that corrosive sublimate is the medicine, which under proper direction is best adapted to the cure of all the forms of syphilis, and in fact it constitutes his "infallible cure." He commonly gives the sublimate in form of pills, made up with crumb of unfermented wheat bread and sugar, as follows:—℞. Hydrar. Sub. Corros. gr. xij. Solve in aq. dist. q. s. adde Mica panis albi et Sacchari albi, āā q. s. ut ft. pill. ccxi.—The pills are to be taken every other day; beginning with four, which are to be taken once a day, after dinner, not a quarter or half an hour after, but immediately afterwards, swallowing some water or beer to wash them down. The number of pills is to be increased at each time of taking, by adding two, so that by rising from 4 to 6, 8, 10, the patient at the last days of the treatment takes 30, or a grain and a half of sublimate at a dose. The pills can be made larger when the number is so much increased as to render the dose troublesome. Laudanum is to be used if rendered necessary by pain in the belly, &c. The whole cure lasts twenty-seven days,* and must throughout and without exception, and under all circumstances be completed, if one desires to accomplish a radical cure. Even when all symptoms of disease have disappeared during the first half of the cure

We cannot for want of room follow the progress of the "infallible cure," nor add the Professor's judicious advice as to warm clothing, diet, &c. There are many very good and useful observations on the secondary forms of syphilis, but nothing very new or uncommon. We must therefore refer our readers for further particulars to the work itself, which is by no means long or tedious. An ill-natured critic might find room to indulge himself in considerable ridicule; an impertinent or envious one, might improve the opportunity of endeavouring to lift himself into notice, by reviling an individual, who has character and respectability; but every candid inquirer would make allowances for the enthusiasm which caused the author to be fond of his own doctrines and practice, and give him the credit he undoubtedly deserves, of being honestly desirous of contributing to the utmost of his ability to the advancement of his profession, and the good of his fellow creatures.

J. D. G.

---

* "Die ganze kur dauert 3 mal 9 Tage."

3. *Manual of Pathology, containing the Symptoms, Diagnosis and Morbid Characters of Diseases. together with an Exposition of the different methods of Examination applicable to Affections of the Head, Chest and Abdomen.* By L. MARTINET, D. M. P. Resident Physician of the Hotel Dieu. Translated, with notes and additions by Jones Quain, A. B. Demonstrator of Anatomy at the Medical School, Aldersgate-street. London, 1826, pp. 310.

This work is intended as a clinical guide. It contains first, a brief statement of the necessary requisites for the proper conduct of clinical pursuits; and a detailed account of the improvements which, of late years, have been introduced in the methods of investigating diseases. second, a condensed but complete account of every thing necessary to enable the observer to distinguish diseases from each other, and, to draw up with precision, the history of them. To this is added an enumeration of the symptoms of the different affections, and the morbid alterations which they induce. M. Martinet in his work has freely availed himself of the labours of Laennec, Andral, Lallemand, Serres, Louis, Broussais, Rostan, Chomel, Double, Landré, Beauvais, and Professor Recamier, and the office which he has for some time filled at the Hotel Dieu, has enabled him to verify repeatedly, by actual observations, the correctness of the statements he has made.

We strongly recommend M. Martinet's manual to the profession, and especially to students; if the latter wish to study diseases to advantage, they should always have it at hand, both when at the bed-side of the patient, and when making post mortem examinations. We hope that one of our enterprising Booksellers will reprint Mr. Quain's translation; it appears to be faithfully executed, and contains some interesting additions.

---

4. *Chirurgische Kupfertafeln, eine auserlesene Sammlung der noethigsten Abbildungen von äusserlich sichtbaren Krankheitsformen: u. s. f. Zum gebrauch für praktische Chirurgen.* Von L. F. V. FRORIEP, M. D. &c. 4to. Weimar.

This work consists of a selection of the most valuable surgical engravings, illustrative of important operations, and of the instruments, bandages, and other apparatus employed by the most distinguished practitioners throughout the world. A brief descriptive text accompanies the plates, explanatory of the various operations, or indicating the diagnostic signs of the diseases exhibited in the engravings. These figures are copied from a great variety of works, or from detached papers published in the periodical journals, thus supplying the possessor of the work with a mass of surgical information which he might elsewhere seek in vain in any one book. Thirty-seven numbers of this work are now before us, comprising more than a hundred representations of surgical diseases, operations or apparatus, displaying in a very satisfactory manner the most approved resources of our art. The engravings, though by no means elaborately wrought, are expressive and accurate; a number of them are done with considerable elegance, especially some which are coloured. In addition to the extensive collection from standard works, there are some highly interesting original engravings; among others the portrait of a youth labouring under the morbus cœruleus, and a representation of two stages of ophthalm

Hemorrhea which are very interesting. The contributions of German surgeons to the improvement of the art are shown by this work to be very numerous, and many of them of much importance, but no undue preference for the surgical practice of any country is exhibited. Dr. Froriep draws liberally from all accessible sources, and has done full justice to every individual who has contributed to the advancement of surgical science, however obscure such individual may otherwise have been. We should consider such a work as that of Froriep, with an English text, as a gift of great value to American surgeons J. D. G.

---

5. *Lehrbuch der gerichtlichen Medicin. Zum Behuf akademischer Vorlesungen; und zum Gebrauch für gerichtliche Aerzte und Rechtsgelehrte entworfen.* Von Adolph Henke, M. D. &c. Berlin, 8vo. pp. 471. 1827.

These Elements of Medical Jurisprudence have been exceedingly popular in Germany, and have passed through five editions since the year 1812. The manner in which the subject is treated, is well suited to make this book a favourite, as it is at once clear, concise, and exact; the author discussing the various important topics belonging to this department of medicine, with the energy which is inspired by a vast fund of experimental knowledge, enlivened by all the light derivable from the accumulated efforts of others. There are ample references throughout to the most approved authors who have investigated or treated of the different questions examined, as well as numerous references to separate tracts or essays on such subjects scattered through periodical papers or contained in the transactions of learned bodies. The evidences which are thus supplied of the zeal of the German physicians in pursuit of knowledge is both surprising and satisfactory; the medical literature of other countries appears limited indeed, when compared with the exuberant productiveness of the industrious professors and students of the German schools. Did not other more urgent avocations interfere, we should be tempted to translate this volume of elements of forensic medicine, which is so well adapted to the purpose of enabling the reader, with a small degree of application to obtain a highly advantageous view of the principles of this important science. J. D. G

---

6. *Clinique de la Maladie Syphilitique* Par M. N. Devergie, D. M. P. et G. Chirurgien major Démonstrateur à l'Hospital Militaire d'Instruction du Val-de-Grace, Professeur d'Anatomie et d'Chirurgie, &c. Enrichie d'Observations Communiquées par Messieurs Cullerier, oncle, Cullerier, neveu, Bard, Gama, Desruelles, &c. &c. avec Atlas Colorié. Paris, 4to.

This work is now publishing in Paris, in numbers, each containing five plates and about sixteen pages of letter press. We have received the first seven numbers; these contain the preface and introduction to the work, and representations of the healthy male and female organs, and various forms of syphilitic disease

The introduction contains observations, 1st, on the origin of syphilis; 2d, on the different theories entertained with regard to its nature; 3d, on the modes of treatment successively adopted for its cure.

M. Devergie is of opinion: "1st, that the disease did not originate in America

2d, that it did not arise exclusively in Europe at the end of the fifteenth century: 3d, but that it was known in different climates before there was an easy communication between their inhabitants; 4th, that it has existed at all times, and ought to be considered as the result of the abuses of love, of debauchery, and libertinism, rather than as the offspring of a particular virus." He then enters into an investigation of the different opinions entertained by authors respecting the nature of syphilis, and adduces strong, and we think satisfactory proofs, that it is not produced by any one specific contagion, but that it may originate spontaneously—may be produced by masturbation—over-excitement of the genital organs, especially in women, from too frequent a repetition of the act of coition, &c. &c.

M. D. has passed twenty years in military hospitals, and was attached during ten years to the same division of cuirassiers; he has thus had ample opportunities for collecting facts relating to syphilis, and to form an estimate of the value of the different modes of treatment.

He has seen the disease repeatedly cured spontaneously, without any subsequent constitutional effects occurring, and he considers many of the supposed secondary forms of the disease as produced by the remedies given for its cure. He recommends the physiological treatment, viz. local antiphlogistic treatment, and above all, leeches, &c.; see propositions 405-415 of the eminent French reformer.

The plates which accompany these numbers, present as beautiful and accurate representations as we have ever seen, of several of the forms of venereal disease.

QUARTERLY PERISCOPE.

FOREIGN INTELLIGENCE.

ANATOMY.

1. *On the Vascular Appearance of the Human Stomach, which is frequently mistaken for Inflammation of that Organ.* By JOHN YELLOWLY, M. D.—In our original department we have given the result of some inquiries relative to the mucous membrane of the stomach. A notice of a paper on the same subject, published in the fourth volume of the Medico-chirurgical Transactions, by Dr. Yellowly, will probably not be uninteresting here. This paper is a sound and plausible one in most respects, and exhibits such good talents for observation, that in this country, at least, it has on all discussions respecting the pathology of the stomach, been brought forward as proving the non-existence of inflammation in certain diseases. The reflections at the conclusion of his paper are evidently those of a mind not far from the truth, but which had been kept undetermined and in equipoise, perhaps, by the comparative novelty of the subject, at the period when he made his observations.

Notwithstanding the general merit of his paper, the tabular view of twenty dissections is very unsatisfactory in not giving, with but few exceptions, the duration of the diseases under which the patients perished, the medicines which they took just before death, nor the quantity of contents in the stomach, all of which influence somewhat its appearance. Neither has he stated, with sufficient accuracy, the number of hours which intervened between the death and the examination of the individuals. I mention these as objections to the plan of the paper, and if we also inquire particularly into each dissection, it will be observed that there is scarcely a case which would be set down to gastric inflammation, according to the rules we have inculcated. It is true that there is redness and vascularity in all the stomachs, but none of them presented the red, blotched, and motley appearance of genuine acute inflammation of the mucous membrane · on the contrary, the blood seems to have been arrested in the capillary vessels instead of being extravasated. The only cases where extravasation is spoken of are exactly those where we would expect to find it, to wit. No. 1, apoplexy, No. 2—3, traumatic irritation, and No. 19, protracted fever with irritability of stomach.

Mr. Yellowly next gives the dissection of five criminals who were executed by hanging; as the fact is generally conceded, and has been pointed out by Bichat and others, that this mode of death produces a great accumulation of blood in the capillaries throughout the whole system, we find in Mr. Yellowly's cases a correspondence with our previous knowledge on the subject. Cases 1st and 3d, seem to have presented the red blotches so remarkable in yellow fever, and others of high gastric irritation. English criminals, we understand, are much in the habit of copious potations of alcoholic drinks just before they are executed, it would have been more satisfactory if Mr. Y. had inquired on this subject, and reported accordingly. Mucous membranes, however, when congested by any cause, either mechanical or otherwise, bleed so readily, that strangulation alone might have produced the appearance. Case 2d was examined at so remote a time from death, to wit: seventy-two hours, and presented the stomach so completely dyed by infiltration, that no rigid deduction can be drawn from it, either one way or the other. Cases 4th and 5th do not present peculiarities leading to any very distinct conclusion.

Fig. 1, and fig. 4, of Mr. Yellowly's plate, I should unhesitatingly set down to acute inflammation, were similar appearances met with in a dissection. Fig. 2, and fig. 3, are equivocal, they may or may not belong to inflammation, they resemble, however, very much the stomachs of old drunkards

Mr. Yellowly does not seem to be apprized of the fact that the extreme redness of acute inflammation of the stomach does not last for much more than six or eight days, and that it afterwards disappears to a very great degree, indeed sometimes almost entirely, leaving only a dark yellowish, motley tinge, with softening, or even a total removal of the mucous coat.

Mr. Yellowly expresses his conviction that the thinness of the stomach at its greater end, so frequently met with, is not a diseased state, but a natural one, he therefore rejects the testimony of Mr. Hunter, and others, on this subject, and is disposed to refer it to mistake. But though the left extremity of the stomach is not so thick as the right, yet the following simple experiment will enable any one to detect a removal of the mucous coat. Let the suspected part be floated for a few minutes in water, in which case the edge of the erosion will become as distinct as the edge of an ulcer on the skin, under common circumstances. Again, in those cases of erosion, so far from the blood-vessels not being injured, they are so much so that a wax injection may be freely pushed through them into the cavity of the stomach, an example of this is now preserved in the anatomical cabinet of the University.

Mr. Yellowly, in detailing the experiment on the dog, (p. 416,) poisoned by corrosive sublimate, says that there were dark coloured "patches" of coagulated blood in the villous coat of its stomach, "very similar to that which is sometimes found in an inflamed serous membrane, on which coagulating lymph had been very recently deposited."* He has here made a very accurate and judicious observation, which, if it had been applied as a test to his other dissections, would have dispelled most of his doubts and errors. For the patches of red blood in an acutely inflamed stomach, bear the strongest resemblance to the patches of red blood found in the substance of the factitious membrane of a recently inflamed pleura, and seem to disappear by the same process, absorption.

W. E. H.

2. TIEDEMANN *on the Membrana Pupillaris.*—"Dr. JACOB has proved that this membrane does not disappear towards the seventh month of fœtal life, but that in most cases it exists at birth. Towards the seventh month it loses its blood-vessels, becomes perfectly transparent, and gradually diminishes till it is entirely absorbed a short time after birth. From eight to fifteen days from birth slight traces of this membrane may be discovered. Dr. Jacob once succeeded in injecting the membrana pupillaris in a fœtus nearly at its full time. M. Tiedemann has repeated the experiments of Dr. Jacob, and confirmed their accuracy. He has injected the membrane in a fœtus which died during labour, it exhibited an extremely delicate network of vessels, well filled with injection, as also were the vessels of the iris. The injection was composed of isinglass and cinnabar."—*Bulletin des Sciences Méd., April, from Zeitschrift für Physiologie*

3. *Account of a Remarkable Production resembling a Tail.* By ARTHUR JACOBS, M. D.—This very curious production was observed in a young man, it had ex-

---

* Mr. Y. has made a little mistake about the position of these patches, they are not in the inflamed natural pleura, but in the factitious membrane of coagulating lymph. Just opposite to them are found on the pleura, the red points of the vessels through which the extravasation occurred, they look like those on the dura mater, when the skull-cap is first torn up.

isted from birth, was about the size of the closed hand of a large man, and was situated upon the lower part of the sacrum. Upon its most convex part was an orifice, through which the finger could be introduced and passed round an irregular resisting body, which partly projected through this opening. This extraordinary production adhered firmly by one extremity to the spine, the connexion was osseous, but so spongy as readily to yield to the knife. It was extirpated by Mr. Jacobs, Senr. and on examination it was found to be furnished throughout with a bony core, or centre, consisting of separate pieces, distinctly joined to each other with perfect synovial capsules. Mr. Jacobs adds, that he "has been assured by a person of veracity, who states the fact from actual observation, that he knows an individual who has a production, or continuation of the os coccygis, which can be felt through the clothes, and causes inconvenience when the person sits; and that it is generally believed that several members of the same family have a similar appendage."—*Dublin Hospital Reports, Vol. IV.*

4. *Anatomical and Physiological considerations on the connexion of the Placenta with the Uterus, on the Vascular Communications between the two Organs, and the Mode of Circulation of the Fluids.*—M. Lauth, Jr. thinks that although anatomists and physiologists have paid much attention to the mode of union of the uterus and placenta, and the reciprocal exchange of blood between the mother and fœtus, they have not given us clear views of the structure of these parts, nor of the manner in which they perform their peculiar functions. The author's experiments lead him to deny, that the uterine placenta really exists under the form which has been assigned to it. He has been able to inject by means of very fine tubes two different orders of vessels, visible in the membrana decidua. The one runs from this membrane to the placental vessels, and the other from the placenta to the vessels of the membrana decidua, all which appertain to those of the placenta. These vessels are the lymphatics, of which the former separate from the blood of the mother, the materials necessary for the fœtus, and the second draw from the blood of the fœtus the matters which ought to be separated from it. Finally, according to the author, the placenta appears to perform in the fœtus, the functions which are subsequently performed by the intestinal canal, rather than those of the lungs, which is attributed to it at present. M. Breschet, in a note at the end of this memoir, informs us, that recent microscopic observations, go to show that the globules of blood of the mother do not resemble the globules of blood of the fœtus.—*Journal des Progrès, from the Rép. Gén. d'anatomie et de physiologie pathologiques.*

PHYSIOLOGY.

5. *Anomaly.*—M. Levrat, Senr. reported to the Medical Society of Lyons, the case of a woman, who, after having given birth three times to twins, a male and a female each time, was delivered at the fourth and a half month of pregnancy, of a male child, and milk was secreted in the right breast only; four months afterwards she was delivered of a perfect female infant, and at this period milk was secreted in the left breast alone.—*Annales de la Méd. Phys. April,* 1827, *from the Compte rendu des trav. de la Soc. de Méd. de Lyons. Par J. M. Pichard, D. M.*

6. *Periodical Dumbness.*—"M. Itard informs the Royal Academy of Medicine, that he had seen a female who is dumb at each menstrual period; this he attributes, justly, to a cerebral congestion taking place at these epochs."—*Annales de la Méd. Phys. Feb.* 1827.

7. *Circulation of the Blood.*—The experiments of Dr. Barry, on the motion of the blood in the veins, has excited much attention, and the conclusions he has drawn from them have met, especially in England, with considerable opposition. Dr. Arnott, in his late treatise on the elements of physics, notices in a manner not very remarkable for its sound philosophy, the theory some years since advanced by Dr. Carson, that the return of the blood to the heart was effected by atmospheric pressure, and also the experiments of Dr. Barry, and asserts, "1st, That the veins being tubes, free to collapse, no pump can lift liquid through them. 2d, That the suction powers of the chest, in ordinary respiration, is too weak to lift liquid a distance of even one inch, through tubes of any kind." Dr. Carson, in a very ingenious paper in the *London Medical and Physical Journal,* for August last, refutes these assertions. He does not, however, deny that the force of the heart and arteries may be sufficient to move the blood, in certain circumstances, through its whole course, but he maintains that this is not the force employed for that purpose. The well known fact which he adduces, viz. that when a vein is opened in the arm or leg, without the veins above the opening being compressed by ligatures, little or no blood flows, is conclusive, at least, to our minds, on this point; for the blood certainly, on the supposition of its being propelled by a force *a tergo,* would find its way rather out of the opening, than proceed in the vein, carrying before it a column of blood, one or two feet in height.

---

8. *Case of Extraordinary Constipation.*—It is surprising what wide deviations from a healthy state of the functions, nature will accommodate herself to, and that while some fall victims to injuries so slight as scarcely to be cognizable, in others, life is sustained under the infliction of the most extensive derangements. Dr. Crampton relates, in the *Dublin Hospital Reports,* vol. iv. the case of a young lady who was attacked in February, 1825, with a severe diarrhœa, which ceased after a few days, and was succeeded by a costive state. After some time the abdomen became tender and inflated, "she seldom had a stool more than about once a week; all medicines were rejected from the stomach; the greater part of her sustenance, which was all liquid, shared the same fate; what she brought up was offensive in the extreme, and often evidently stercoraceous; in some instances it had a urinous taste and smell, little urine being either secreted into or passed from the bladder. Notwithstanding the uncomfortable condition in which she existed, after a little time it became evident that she bore her distress and pains with more facility. The symptomatic feverish state subsided, the pulse became natural; she took liquid food in sufficient quantity, there was less emaciation, the vomiting was less severe, but she threw up every day, and the intervals between the times of emptying the bowels became longer, the urine was seldom passed, and then with pain, and in very small quantity; the catamenia were still regular. She even appeared to have regained a little flesh, and slept well. Her usual sustenance was tea, toast, milk and gruel, but no solid food; no swelling now, or fulness in the abdominal region; she has either lost the use of her lower extremities, or is averse to use them. She is now in her 37th year, and has been in the state described for the last seven years. For the last eight months she has had no passage from her bowels, and only two or three during the preceding year, and she scarcely passes any urine."

Dr. Crampton recollects a case in Steevens's Hospital, in which "both the bowel and urinary discharges were nearly suppressed. When she had a stool it was considered quite an extraordinary occurrence; and she never passed urine except when relieved by the catheter. She vomited occasionally excremental matter; and for a considerable time, when no urine appeared to be secreted, she threw up a fluid of a urinous taste and smell. She lived for several years."

---

9. *Pulsation in the Veins.*—A very interesting case of this is recorded by Dr. Davies in the fourth volume of the *Dublin Hospital Reports.* It occurred in a girl aged six years, labouring under acute hydrocephalus, which terminated

fatally. There "was a pulsation in all the veins, distinct and well marked, synchronous with that of the arteries, and in the veins of the extremities, perceptible to the eye, even at the distance of two yards. The veins were larger than is usual at her period of life, and pressure upon any of them stopped the pulsation between the part compressed and the heart, so that it obviously could not be caused by regurgitation from the auricle. The pulsation in the part of the vein, towards the extremity, was rendered much stronger, and more distinct, provided the return of the blood to the auricle was not completely obstructed, but if the compression was so strong as entirely to obliterate the calibre of the vein, that part of it which became tense and distended with blood so far as the next valve, after a few seconds, lost the pulsation altogether. The pulsation of the heart was somewhat stronger than usual at her age; the pulsation of the veins was softer than that of the arteries, and was completely stopped on compression of these latter vessels." The arteries were injected after death, "but presented no preternatural communication whatever with the veins, neither could any artery be discovered in the immediate vicinity of these latter vessels which could throw a doubt on the fact, that the pulsation had been continued from the heart, through the arteries and capillaries to the veins."

PATHOLOGY.

10. *Case of gangrene of the lung; dilation of the bronchial tubes; cavity in the right lung; bronchitis.* By **Drs. Graves and Stokes.**—This is an extremely interesting and rare case. Laennec, Andral, and Bayle, all unite in setting down the uncircumscribed gangrene as one of the rarest of pathological phænomena. Laennec states that he met with it but twice in the course of twenty-four years observation, and that but six cases occurred in the hospitals of Paris during that period.

Case.—L. B. ætat. twenty-eight, full habit—thorax well developed—had been subject for the last year to palpitations, cough, and pain in the sides. *November* 1st, rigor, with increased pains. *November* 2d, cough frequent—expectoration of a dark red colour—pulse 144—lays on his right side—breath very fœtid—cadaverous smell from the whole body—countenance of a leaden hue—lips livid. On percussion the right side was dull anteriorly, on applying the stethoscope from about two inches above the mamma to the inferior portion of the lung, we heard a sound similar to that produced by the retraction of a piston; on expiration an obscure crepitus was audible. About the mamma, cavernous respiration, gurgling and pectoriloquism. Over the left lung respiration puerile, with slight crepitus about the mamma.

Diagnosis. Suppurative inflammation of the lower lobe of the right lung; a cavity anteriorly in the lower part of the middle lobe; slight inflammation of the lower part of the left lung.

Ordered, venesection ten ounces; cupping glasses to the right side, and afterwards a large blister; small doses of calomel and hyosciamus, and an abundant supply of warm diluents. Evening—much relieved, pulse 96, cadaverous smell disappeared, no expectoration—the peculiar respiration in the superior right lung not audible—skin dry—calomel and hyosciamus omitted—small doses of antimonial, with a little calomel to be taken every second hour.

November 3d.—Lying on his left side, which he has not, he says, been able to do for the last six months. Expectoration about two ounces, purulent, sanious, and presenting the prune juice colour in some degree.

November 6th.—A loud muco-crepitating rale over the whole left lung—cavernous respiration evident over a more considerable portion of the right lung, with confused pectoriloquism; posteriorly the murmur was natural—crepitus in the antero-superior portion.

Diagnosis. General bronchitis of the left lung; excavation in the right lung increasing.

Evening.—Violent pain in the left side—pulse 110, small—distinct crepitus mixed with sonorous rale over the postero-inferior part of the left side.

Diagnosis—pleuro-pneumony of inferior part of left lung—no effusion into the cavity.

Was leeched freely and took a large dose of Dover's powder.

November 7th.—Lying on the right side—had passed a good night—pain greatly diminished—expectorates some blood. Crepitus less audible, of a more humid character—sound on percussion over left mamma, natural—cavernous respiration less distinct.

November 8th.—Last night expectorated a large quantity of blood suddenly—breath more offensive—gurgling evident over a space nearly four inches about the right mamma. Opium and sulphate of quinine were ordered, a small quantity of wine allowed, and a seton inserted over the cavity.

November 9th.—Better; expectoration resembling the juice of prunes mixed with grumous blood. In the evening had a severe rigor, and another on the 10th, and on the 11th died.

Dissection.—" Body fat and muscular; some œdema of the right leg.

"On raising the sternum the left lung collapsed, and on a superficial view appeared healthy, and free from adhesions. The right lung felt solid, and completely filled the right cavity of the thorax; the adhesions to the pleura were so strong, that in detaching the lung the pleura costalis was torn away. A perpendicular incision being made on the antero lateral face, the superior portion was found inflamed to the first degree for about an inch downwards, when it passed into the second in spots, between which the substance of the lung was soft, and of a reddish yellow colour, but still crepitating, giving to the lung the appearance of a piece of Egyptian sienite. On the antero interior line, about three inches from the summit, the lung felt solid, and the surface of the incision was of a dark grey colour, and motley appearance. An anfractuous cavity was then discovered, having three prolongations or horns, one extending upwards, another downwards and backwards, and a third to the right side. A yellowish semifluid matter flowed slowly from the lateral prolongation; but the other parts of the cavity were filled with a substance resembling putrid flax, and exhaling an exceedingly fœtid odour. Several dilated bronchial tubes opened into it from behind; its parietes were firm, but irregular, and lined with a cartilaginous membrane, which extended to the neighbouring bronchial tubes. Bands of condensed pulmonary tissue were observed in several places forming elevations on the parietes. Below this cavity we found a solid mass, about the size of two walnuts, in which a small cavity was found, not communicating with the bronchial tubes. It had no lining membrane, and the substance of the lung around was in the state of grey induration. Most of the bronchial tubes in this lung were dilated, forming culs-de-sac at their terminations, where they were nearly as wide as at their origin. The lining mucous membrane was of a deep red colour, soft and swollen; no ulceration could be detected.

"On detaching the left lung from the diaphragm, the fingers of the operator entering the substance, and a large cavity, capable of containing a moderately sized apple, was found, of a completely gangrenous appearance; from its sides a blackish sanies flowed in great abundance. The edges of the cavity were ragged, and in a state of deliquescent sphacelus; no bronchial communication could be found, but the affected part was surrounded by a band of hepatization, beyond which the tissue was healthy and crepitating.

"The mucous membrane of the bronchial tubes was almost black; this appearance extended to the trachea, and gradually fading, terminated at the rima glottidis. Some adhesions were found, and the inferior portion of the pleura was highly vascular. The right ventricle was enlarged, soft and pale; the pericardium presented the white patches of Laennec without adhesions."
—*Dublin Hospital Reports, Vol. IV.*

11. *Swelling of the Extremities.*—But two species of these have been acknowledged by pathologists, viz. phlegmasia dolens and elephantiasis or bucnemia tropica of Dr. Good. Dr. Graves has observed two sorts of tumefactions which are pathologically different from either of the above; the symptoms and characters of which are laid down. Of the first species two cases have been published, one by Mr. Chevalier in the 2d vol. of the Medico-Chirurgical Transactions, and the other by Söemmering.

The second species may occur either in the upper or lower extremities, and is by no means an uncommon disease in Ireland. A case of this affection will be found in Haller's Disputationes Chirurgicæ, vol. v. p. 463. Dr. Graves has given a coloured drawing, representing the hand of a girl in whom the disease had lasted about one year. When the case is not of long standing, Dr. G. recommends during the febrile paroxysms, an antiphlogistic treatment and purgatives; repeated application of leeches to the inflamed parts, cold lotions, lead washes, &c. During the intermissions, rest of the affected extremity, moderately tight bandages, bark, and if it fails, arsenic. Change of air should always be recommended, and the antiphlogistic plan resumed the moment the inflammatory paroxysms occur.—*Ibid.*

12. *Pulmonary apoplexy.*—In the description given by Laennec of this disease, it is laid down that there is a well marked line of demarcation between the affected portion and the healthy pulmonary tissue. In a case described by Drs. Graves and Stokes, in the fourth volume of the *Dublin Hospital Reports*, this did not exist, "the engorged generally passing into the healthy by imperceptible transitions." The case is also remarkable on account of its extraordinary extent, the disease not being limited to one part, scarcely any portion of either lung being free from spots containing extravasated blood. In the cases described by Laennec, the disease occupied but a small portion of the lung.

13. *Propagation of Inflammation by Contiguity.* By R. Graves, M. D. and W. Stokes, M. D.—"In the dissection of a fatal case of enteritis, we observed that the omentum, which lay extensively over the intestines, was healthy, except where it was in contact with the inflamed portions of the intestines. These portions were circumscribed and limited in extent, some highly vascular and red, others in a gangrenous state, and one actually perforated. The perforation was very small, not exceeding a line in diameter. The inflamed portions of the omentum were very vascular and red, about the size of a dollar, and *lay exactly over the inflamed portions of the intestine.* It is to this correspondence in their situation with the inflamed parts of the intestine, that we wish to direct the attention of our readers. Similar facts have been frequently observed in diseases, but, as far as we know, they have never been satisfactorily explained. Thus when a portion of the pleura pulmonalis is much inflamed, a portion of the pleura costalis corresponding, or opposite to it, is always found to be also inflamed. When, on the other hand, inflammation spreads from the intercostal muscles to the lungs, as in the conversion of pleurodyne into pnemonia, it does not traverse the pleura, in order to reach the lungs, by following the reflection of this membrane over them, but passes at once, and directly from the pleura of the ribs, to that of the lungs, between which there was previously no direct communications.* To this circumstance is owing the adhesions between serous membranes, so readily formed by inflammation, for when a part of one becomes inflamed, the portion of the other, in contact with the inflamed parts, assumes also an inflammatory action; and lymph being thrown out by both, a false membrane is finally formed, not less intimately connected with one than with the other.

"In enteritis, we have repeatedly observed that the peritoneum lining the abdominal parietes is most inflamed in those parts which had been in contact with the most inflamed portions of the intestines. Another very important analagous fact was observed by Dr. Wilson Philip, in his Treatise on Indigestion. In the second stage of that disease, the pylorus, frequently becomes inflamed, producing tenderness in the epigastrium, (page 105;) and as the pylorus he observes, 'lies with the thin edge of the liver upon and in contact with it, the inflammatory process is communicated to the thin edge of the liver, and thus inflammation of the liver is occasioned, and terminates in evident enlargement and tenderness of that organ.'

---

* See Wilson Philip on Indigestion.

"We venture to propose the following explanation of these facts. When a portion of a serous membrane becomes inflamed, it is rendered highly vascular; it becomes at first dry and rough, but afterwards exhales either a morbid fluid secretion, or coagulable lymph; there is some reason to believe that its temperature is also increased. Now in this state of things, that portion of the opposite membrane which corresponds to it, is thus exposed to the contact of a membrane, whose *sensible properties* are altogether altered from their natural state, and which may therefore be now considered to be as it were a *foreign body*, which presenting a surface quite different from that which the sensibility of the opposite membrane had been accustomed, must of course act as a stimulus to it, and thereby excite in it an inflammatory action. This explanation seems at least more satisfactory than Mr. Hunter's sympathy of contiguity.—*Ibid.*

14. *Whitish Stools.*—These were formerly attributed to the loss of chyle by stool, Dr. Baillie thought at least one variety of them depended on a copious secretion of calcareous matter from the intestines. Dr. Graves considers them as a secretion from the mucous membrane of the rectum, when in a state of irritation or sub-inflammation, and to be analogous to the white and viscid discharges from other mucous membranes, as from the conjunctiva, bronchial tubes, urethra, vagina, &c. This affection of the rectum may extend to the small intestines, as is proved by the examination of persons who have died of East India Cholera.

Case.—Dr. Graves was applied to by a gentleman who had had dysentery, the prominent symptoms of which had disappeared. His appetite was good—digestion tolerable—but he was daily becoming more emaciated and weaker. He had two natural stools daily, without tenesmus, but complained of eight or ten sudden calls to stool, during the twenty-four hours, attended with an impossibility of resisting the bearing down and weight felt in the rectum; these evacuations were preceded by no premonitory sensations, and consisted merely of two or three table-spoonsful of muco-gelatinous matter. Numerous remedies were tried without benefit, at length Dr. G. resolved to try strychnine, on the authority of Dr. Rummel. It was given in doses of one-twelfth of a grain, in the form of pill twice a day, which completed the cure in three weeks.—*Ibid.*

15. ***Black or very Dark Stools.***—These may be caused, 1st, by an effusion of blood into the intestines, causing true melania; 2dly, by black bile; 3dly, by a secretion of dark-coloured matter from the mucous surface of the alimentary canal. A very remarkable case of the latter, in which very great quantities of matter, sometimes of the consistence and colour of tar, and sometimes resembling ink, were passed by stool for ten or twelve days in succession, was cured by the use of oil of turpentine, and other stimulating tonics.—*Ibid.*

16. *Contagious Psoriasis.*—Duffin and Bateman maintained that scaly eruptions are not contagious. Dr. Graves has recently seen a case which seems to him to prove that they may be communicated by contact under certain circumstances. A gentleman of cleanly habits was affected for many years with psoriasis palmiaria. Last year Dr. G. was called to see this gentleman's butler, who had an extensive psoriasis on the back of the hand, which he attributed to wearing his master's old gloves. Two months afterwards, the house maid was affected with the same complaint, which she attributed to contact with her

master's linen, in making his bed. These facts, though they may render probable, certainly do not prove the contagious nature of the disease.

The most extensive case of psoriasis diffusa which Dr. Graves ever saw, occurred in a boy, from sleeping on some fleeces of wool without his shirt. Dr. G. has also seen an entire family of children infected with a disease resembling itch, from playing with a mangy dog.—*Ibid.*

17. *Rheumatism of the Temporal Muscles.*—This complaint often causes much uneasiness, being confounded with lock-jaw. Dr. Graves has seen two cases in which the inflammation and contraction of these muscles was so great that the jaws were firmly closed. There was no constitutional derangement—the tenderness and pain are greatest just above the zygoma. A cure is easily effected by the repeated application of leeches, and proper anti-rheumatic remedies.—*Ibid.*

18. *Fracture of a Cervical Vertebra by Muscular contraction.*—M. Réveillon related to the Royal Academy of Medicine at the sitting of the 8th of February, the following curious case. "A soldier, an excellent swimmer, plunged headforemost into the Sambre. His companions seeing him struggle for some minutes, thought him in jest; but, perceiving that he became motionless, they ran to his assistance and dragged him out. On recovering his senses there was found neither fracture nor dislocation, but the limbs were paralyzed—he could not support his head—skin insensible—severe pain in the lower part of the back of the neck, without any external wound—priapism, and frequent desire to make water. The patient stated that, at the moment when he made the plunge he recollected that the water was shallow, and suddenly drew his head back to avoid dashing it against the ground, and that at this instant he lost all consciousness. Delirium came on, and in the night the man died.

Dissection.—"The meninges were of a deep red, and the vessels of the brain itself injected. There was sanguineous effusion around the vertebral column the spinal canal, *without* the dura mater, which was sound, was full of blood, and, finally, the body of the fifth cervical vertebra was fractured transversely, a little below its middle, so that the two plates of this bone were separated from the lateral masses."—*Archives Générales, March,* 1827.

19. *Injurious effects produced in Children by Protracted Suckling.* By **Edward Morton, M. B. L. M.**—Dr. Morton is of opinion—"1st. That if children are suckled for an undue length of time, (any period beyond nine or ten months,) they will be liable to be affected, in consequence, with inflammation of the brain." "2nd. That the same effect will take place in infants if suckled by women who have been delivered an undue length of time, although the infants themselves may not have been at the breast for too long a period." "3d. That, if they should not become affected with the disorder in question, during, or soon after the time they are thus improperly suckled, they will nevertheless acquire thereby a predisposition to cephalic disease at some future period of their lives." "4th. That children who are suckled for an undue length of time, when labouring under other diseases, will be much more liable to have the head secondarily affected than other children."—*Lond. Med. and Phys Journ. August,* 1827.

20. *On Sanguineous Tumours of an Equivocal character, which appear to be Aneurisms of the Arteries of Bones.* By **M. Breschet.**—These M. Breschet thinks have been confounded by writers, with osteo-sarcoma, fungus hæmatodes, inflammation of the veins of bones and of the bones themselves, &c. The disease generally arises spontaneously, sometimes follows blows or other external violence, occasionally succeeds gouty or rheumatic affections of the knee. It is usually situated at the posterior part of the leg, below the knee, and affects the tibia or fibula, or both, sometimes the disease occupies the metatarsal bones of

the foot. The tumour is painful, and the veins of the whole limb swollen, distended, and varicose. There is deep-seated pulsation synchronous with that of the arteries, this pulsation ceases on the artery, between the heart and tumour, being compressed. On pressing with the finger upon some parts of the tumour, a sound resembling the breaking of an egg may be heard. On dissection, the cellular tissue of the bones has always been found in great part or wholly destroyed—the cavity of the bone enlarged, filled with coagulated blood disposed in concentric layers, as in old aneurismal tumours, and these clots form one or several foci, each communicating with an arterial branch. The external table of the bone still remains, but thinner than natural—destroyed in several of its parts, and offering but feeble resistance, in comparison with a cartilaginous surface which yields to the finger, but quickly recovers itself. Sometimes the bone may be crushed easily, like an egg shell. The periosteum and the aponeurotic expansion, are generally thicker and firmer than in the healthy state, and sometimes they pass into a fibro-cartilaginous state. The articulation near the seat of the disease, has always been found healthy, even when it was only separated from the seat of the malady by an expansion of cartilage. Injection has proved that the principal vessels of the limb are healthy through their whole extent; this is not the case, however, with the small arteries which supply the substance of the bone, they are increased in size, and pass from the centre of the bone into the aneurismal sac by several orifices. M. Breschet thinks that this affection may be compared to erectile tissues of soft parts, and that the pulsation in them, which is sufficiently powerful to have led to the comparison between them and aneurisms, properly so called, results from the synchronous movements of dilatation and contraction of all the small arteries which pass from the bony substance to the parts affected. From these partial but simultaneous movements results a continued motion, which has also been frequently observed in erectile tumours of the lips, and of the globe of the eye, &c. That the disease is of an aneurismal character, is proved by the fact that the ligature of the principal trunk arrests the disease. The credit of being the first to detect the nature of this disease, and also of having first indicated the best mode of treatment, is due to Dupuytren. M. Breschet is of opinion that neither topical applications nor compression can be of any service in this affection, the ligature is the proper remedy; the sooner, however, it is applied the greater the chance of success, for the further the disorganization of the osseous tissue has advanced, the greater will be the difficulty of cure, even when the aneurismal character of the complaint is removed by the ligature. When considerable disorganization has taken place, amputation offers the only hope of a cure.—*Répertoire général d'anatomie, &c.*

—

21. *Aneurisms of the Aorta.*—In the thirteenth vol. of our former series, we published an account, by Dr. Comstock, of a case of aneurism of the aorta, which burst into the intestinal canal; in the *London Medical and Physical Journal*, for August last, are detailed three cases, two of which burst into the pericardium, and the third into the œsophagus. In none of these cases was there any considerable inconvenience till within a short period before death.

Case I.—A Spanish officer, who had previously enjoyed excellent health, and was constantly taking violent exercise without inconvenience, was suddenly attacked, January 17th, 1827, in the morning, with the most excruciating pains darting through his chest, attended with a sense of suffocation, and great difficulty of breathing—pulse 100—bowels costive. Towards the afternoon, and during the whole night, he perspired freely, and all the symptoms gradually left him. Ordered some opening medicine. For two or three subsequent evenings, he had slight exacerbations of fever, attended with a good deal of pain in his stomach and bowels, which were moved with great difficulty. On free evacuations being procured, all these pains left him. On the 20th, pulse intermitted every second beat—slight head-ache and rheumatic pain, shooting from his chest towards the insertion of the pectoral muscles. On the morning of the 23d, much better—spirits excellent—appetite good—stronger than since he was taken ill—intended next day to proceed to join the army. At one o'clock had an attack similar to that on the 17th, violent pain in one spot, a little to the right of the sternum. Fomentations were applied, and æther and laudanum given, without benefit. In about half an hour he became more disturbed, and suddenly fell back on his bed and after three or four gasps expired. On dissection, an aneurism of the aorta, of the size of a pigeon's egg, was found, about three inches beyond the semilunar valves. The artery had burst at the extremity of the sac, into the pericardium; owing, apparently, to a sudden impetus of blood, as there was no appearance of ulceration about the orifice, which was merely a longitudinal fissure, one-fifth of an inch in extent. The internal coat of the artery, at its margin, was smooth, and of a natural appearance. The coats of the vessel where they formed the sac, were not a third of their usual thickness. Specks of ossification were met with in the artery, from its root to its arch. Through the orifice one pound and a half of blood had flowed into the pericardium, which was completely distended. No other appearances discovered.

Case II.—A gentleman was suddenly taken ill under circumstances of peculiar excitement, and expired in a short time. On dissection "the cavity of the pericardium was found distended with blood, which had escaped into it from an opening in a small aneurism, situated at the origin of the aorta, just within the portion of it covered by the pericardium. Another aneurism was found arising from the aorta, very near, but quite externally to the bag of the pericardium. The former aneurism scarcely equalled the size of an almond; the opening from the aorta into it was through a narrow irregular fissure in the inner membrane, of about a quarter of an inch in length, and co-extensive with the slightly elevated margin of a steatomatous deposition, under which there was a passage, in an oblique direction, into the little aneurismal pouch. The bursting of this aneurismal pouch had opened a communication into the cavity of the pericardium, and had caused instantaneous death. The second aneurism was larger and deeper; for it admitted the end of the thumb into the opening from the aorta, and protruded, forming a cul-de-sac of an inch and a half in depth, and of the size of a small walnut.

"These aneurisms had obviously originated from some steatomatous depositions between the inner and fibrous coats of the aorta.

"Though the neighbouring portion of the aorta was thickly studded with similar steatomatous formations, (which so frequently form the matrix for the deposition of particles of bony matter there,) still none of these had acquired the consistence of cartilage, much less the hardness of liminæ of bone. The inner membrane of the aorta, in the spaces between these yellow steatomatous depositions, was red, and highly vascular.

"All the valves of the heart were in a perfectly natural condition. The brain also, and all the other organs, presented their natural appearances."

Case III.—A gardener was attacked, about the middle of April, with pain in the left side of the head, and general uneasiness, which he attributed to taking cold. A few days afterwards he had some difficulty of swallowing, and slight cough, and the former increased till he could not take solid food. Complained of pulsation in his chest, none at any time to be felt. Pain referred to the right side of the sternum, latterly unable to lie on his left side. Pulse 60, not intermitting. Was found dead in his bed, May 26, with blood issuing out of his mouth.

"On examining the body, an aneurism was found arising just below the point of departure of the left subclavian artery, and which had burst into the œsophagus. The stomach was distended with coagulated blood; and the air-tubes of the lungs also contained some, which appeared to have descended through the glottis."

---

22. *Rupture of the Aorta, without Aneurism.*—Three cases of this, we believe rare accident, are related in the July number, 1827, of the *London Medical and Physical Journal.*

Case I. A gentleman aged 52 years, stout and large frame, rather full habit, had suffered at different times a good deal of anxiety of mind—was very suddenly attacked, February 16th, while engaged in earnest conversation, with a sharp pain commencing in his chin, and passing rapidly down his neck, in the course of the great vessels, to his chest and back. The next day Mr. Rose was sent for; he found the patient lying on his back, his pulse soft and easily compressed, about 96 or 100—tongue moist—countenance anxious—afraid to turn himself in bed or move. Could easily distend his lungs, but this like every other exertion, was followed by an increase of pain. There was nothing in the previous history of the case to throw light on the nature of his attack. On the 18th was better, ate with appetite, was easy and cheerful. Once or twice he complained of a noise, which he thought proceeded from some persons knocking on the partition between his room and the next, though nothing of the kind could be heard by others—he had also made the same complaint the day before. In the evening he became restless and got up repeatedly from a disposition to tenesmus. Mr. R. at his visit found him in a state of extreme depression, pulse feeble, very irregular and fluttering—cold perspiration on his skin—extremities cold. These symptoms subsided a good deal on some strong port wine negus being administered, and he continued quiet and easy until about 4 o'clock the next morning, February 19th, when the same disposition to tenesmus returned, obliging him to get out of bed two or three times. After being up for a few minutes, the faintness returned, and he shortly afterwards expired. On dissection the semilunar valves at the root of the aorta were found "partially ossified, at that part of their margin which is attached to the sides of the vessel. Beyond these, the whole internal membrane of the artery, as far as its bifurcation, presented an irregular thickened appearance, from numerous, whitish, flattened tubercles, of a steatomatous character, being every where deposited in it. It could be lacerated with the greatest ease. At the arch of the aorta, there was a rent of not less than two inches in length on its concave side, beginning in the ascending portion, and terminating immediately opposite the origin of the left carotid and subclavian. There was no appearance of ulceration at the edges of this rent. An enormous effusion of blood had taken place every where about the vessel."

Case II. A bricklayer fell from a scaffold forty feet high, fractured his cranium, lower jaw, four true ribs on the right side and three on the left. He lived an hour after the accident but in a state of insensibility, with a cold skin and feeble pulse. On examination "the aorta at the concave part of its arch, immediately beyond the origin of the left subclavian, but on the opposite side of the vessel, and where it turns to become descendens, presented a complete rent in its coats, the laceration forming a very oblong aperture, about three-quarters of an inch in length, and one-eighth across at its widest part. The line of laceration was straight, but oblique as regarded the axis of the vessel. The coats of the artery at this point, as well as elsewhere, offered no evidence of previous disease, but appeared perfectly healthy. No injury of the mediastinum could be discovered, and the aperture of the aorta did not seem in any way connected with the fractured extremities of the ribs."

Case III. A sailor jumped out of his hammock, groaned, and expired. He had gone to bed apparently in perfect health, and had been doing his accustomed duty the day before. On dissection "the aorta was found ruptured about an inch from the semilunar valves; this rupture was about half an inch in length. Small particles of calcareous matter were found deposited at the bottom of the mitral valves, and the corpora sesamoidea aurantii seemed to be composed in toto of this substance. The coats of the aorta were perfectly sound, as not the least deposition, either of ossific or calcareous matter, could be detected about the place where the rupture was situated. The abdominal viscera were perfectly healthy."

23. *Small-Pox after Vaccination.*—In the *London Medical and Physical Journal* for August last, some very interesting cases of small-pox after vaccination with remarks by the late T. Chevalier, are given. The cases occurred in a family of nine children who had been vaccinated in their infancy, and whose father suffered severely at an early age from small-pox, "so as to leave ground for an apprehension that the constitutions of his children might be predisposed to its malignancy, if it should happen to invade them." On the 7th of October, while walking, Julia, aged eleven, passed a child who had the small-pox. On the 14th she was attacked with the symptoms which usually precede the variolous eruption, and on the 16th Mr. C. saw her. He found her with an efflorescence of the skin which he did not believe to be small-pox. "There was, however, one point on the right cheek which looked like it; and on the 18th the disease was too well characterized to admit of any doubts as to its nature, though of the mildest character: the efflorescence of the skin, (which, in the uncontrolled state of the disease, I have always observed to prognosticate the most malignant form,) having entirely disappeared. On the [illegible], the eruption appeared perfect, but the pustules small; and from that time it declined, without any thing like secondary fever. On the [illegible] there was slight inflammation and swelling of the right upper eyelid, sufficient to irritate the surface of the eye; but it soon yielded to mild treatment, and she has since continued in perfect health.

"The disease, however, having thus taken place in the family, naturally excited anxiety about the rest of the children, in whom the consequences appeared as follows:

"Edmund, the youngest, aged seven months, who had been successfully vaccinated by two punctures in each arm, and who was not withdrawn from the nursery during the illness of his sisters, had no symptom of the disease whatever.

"Georgiana, aged two years, had been vaccinated in one point in each arm. She had a little feverishness for two nights, which commenced on the [illegible] of November, but was followed by no eruption, and would in all probability have excited no suspicion of small-pox if it had not already pre-existed in the family.

"Maria, aged six years, was attacked with the constitutional symptoms distinctly on the 2d of November. Only one spot appeared, which was on her upper lip, and she was perfectly well on the 9th.

"Augusta, aged seven years, began to sicken on the 4th. The eruption appeared on the 7th, but it was very slight, and, though she had rather more debility than the rest during its course, it faded away in an equally short time.

"Harriet, aged nine years, was attacked on the 3d. On the 7th a very slight eruption appeared, the characters of which were scarcely recognizable; and on the 9th she was perfectly well.

"Arthur, aged fourteen, had some symptoms which, being similar to those of an attack of small-pox, excited an expectation that he also would have the disease; but he was well after two days, without any eruption.

"Frederick, aged seventeen, was attacked rather severely on the 2d, with considerable fever. The eruption manifested itself on the following day; it was of the mildest nature. On the 7th, it began to fade, when he felt perfectly relieved, and was well in a few days.

"Caroline, the eldest, had been vaccinated in both arms in her infancy, by one puncture in each, and had suffered from considerable inflammation in both of them during the progress of her inoculation: she, however, escaped [illegible] symptom of the small-pox.

"I have not the smallest doubt that if vaccination had not preceded the infection in these cases, the consequence to this interesting family would have been melancholy in the extreme.

"I wish to add to this account, that, having been recently engaged in some rather extensive investigations concerning the structure of the skin, I find that the excretory ducts, (of which there are very many millions on the surface of the body, serving different and important offices,) are for the most part obliterated in the foveæ, or pits, left by severe small-pox. So that a most serious change must suddenly and unavoidably occur in some of the most important functions in the animal economy; especially when the disease occurs, as it usually does, in the progress of growth, when nothing can be more essential than the integrity of the circulation of the blood on the surface of the body, and the perfection of those operations which are dependent thereupon. Hence we may account, in a great degree, for the excitement of those diseases of glands, of the eyes and eyelids, of the bones, and of other organs, which small-pox is so frequently seen to induce; and, although the balance may in time be restored in many instances, by the gradually increased determination to so much of the skin as remains uninjured, yet the alteration, so long as it operates, must be both injurious and perilous.

"A remedy, therefore, like vaccination, which in almost every case, if not in every case in which it has been properly performed, prevents the secondary fever, the ulceration, or gangrene, and the consequent pits, from occurring in small-pox, (even if it fail to exempt the constitution altogether from the disease,) although it had no other advantage, would be of incalculable value to society, and indisputably of the highest advantage to every individual upon whom it is bestowed."

—

24. *Asthma.*—M. Broussais considers most cases of this disease as depending on some obstacle to the course of the blood; and that this obstacle is most commonly a disease of the heart. This is not, however, always the case. A determination of blood, however induced, to the mucous membrane of the lungs in a sanguineous subject, will often give rise to a paroxysm of asthma. M. Broussais has known inflammation and irritation in the mucous membrane of the stomach and bowels induce a fit of what is called spasmodic asthma. He considers the distinction drawn between dry and humid asthma as absurd. Every asthma is dry at the commencement of the paroxysm and the mucous membrane ultimately throws out a secretion which relieves the vessels of the lungs. In all cases, however, of asthma, M. B. avers that there is a congestion of blood in the vessels of the lining membrane of the bronchia and air cells, and that this should be looked upon as the proximate or immediate cause of the phenomena, and treated accordingly.—*Journal de la Méd. Physiol. January*, 1827.

—

25. *Seat of Cancer.*—M. Cruveillier, in a short paper in the *Nouveau Bibliothéque Médicale* for January, 1827, asserts that the immediate seat of cancer is the fibro-cellular tissue. He founds this assertion upon examinations of the disease in the small intestines, stomach, and mammæ, and says that the opinion is strengthened by the fact, that the organs of the body are liable to cancer in proportion to the abundance of fibro-cellular tissue that enters into their composition.

—

26. *Urethritis.*—M. Chapeau has read to the Society of Medicine of Lyons some observations on urethritis concomitant with rheumatic pains, and produced by the same causes. This coincidence has already been noticed in Vol. XIII, p. 216, of our preceding series, and it is we believe, not an uncommon occurrence, though much overlooked by practitioners, many of whom consider every inflammation of the urethra as produced by impure connection.

—

[illegible] *Periodical apyretic diseases.*—Professor Fulbi of Catania, Sicily, has published in the *Bibliothéque Médicale* for March, 1827, five very curious and interesting cases of this nature. The first is a case of intermittent inflammation of the urethra. A law student after an impure connexion, was attacked with a gonorrhœa which ceased the second day, returned on the third, continued twenty four hours, and again ceased. On the fifth day, at the same hour as before, the disease assumed the quartan type, in which form it made two attacks, and then ceased altogether.

The second case is an intermittent cervico-brachial neuralgia, the paroxysms of which came on twice in the twenty-four hours, at 11 A. M. and 10 P. M.

The third was a case of intermittent mental alienation, which assumed a regular tertian type.

The fourth a very curious periodical ascites, which commenced immediately after each menstruation, and continued to increase till the next period, when it entirely subsided.

The fifth an anomalous intermittent neurosis.

---

28. *Destruction of Articulating Cartilages.*—"Under the title of 'Usure des Cartilages Articulaires,' M. Cruveilheir has described a severe complaint of the joints, which is often confounded with gout, rheumatism, white swelling, &c. and treated by means which are useless, if not injurious. This destruction, erosion, or wearing away of the cartilages, is one of the worst effects of inflammation of the synovial membrane of the joints. This effect continues after its cause has ceased to operate; and then the patient experiences a peculiar rigidity of the articulation, with a feeling, and even a hearing of cracking in the joint, on taking exercise, together with pain, of greater or less severity. This crepitus, this rigidity, these pains are particularly felt when the patient first gets up in the morning, and begins to move the joint. Our author has known cases of this kind treated, for a long period, with leeches, blisters, setons, &c. all of which failed—and even amputation had been proposed in some cases.

"M. Cruveilheir attended a lady who, after a severe labour, was seized with articular rheumatism, which travelled successively over all the joints. The pains at length diminished, but did not entirely subside. The patient, without experiencing any new attack of rheumatism, perceived her knee-joints to be gradually getting stiff and painful; and she could feel and hear a crepitus whenever she attempted to walk, or even to turn herself in bed. Soon after this, the hip-joints, the shoulders, the elbows, wrists, and even the metacarpal joints were affected in the same way. Various means were used, without effect, and a surgeon had placed extensive moxas on each side of one of her knees, which penetrated to the fibrous tissues, and produced a copious suppuration that continued some considerable time. The patient thought herself relieved, and consented to a similar application to the other knee. But after three months' sufferings in this way, the joints were found by our author as stiff as ever, and also as painful as before. The constitution had now suffered much from the local irritation. Daily motion was now tried; but this augmented the disease in all respects. He found himself on the wrong track, and quickly abandoned this plan. For a long time he hoped that anchylosis would put a period to this lady's sufferings; but in this expectation he was disappointed. One day, on accurate examination, he found that the joints on being moved conveyed to the ear and hand of the surgeon the crepitus above described. M. Cruveilheir then immediately recognized the nature of the malady as obliteration of the cartilages. For this state, there is no known remedy, but as M. C. conceives that it is the result of inflammation of the synovial membrane, the means of arresting the progress of the disease, consist of course, in rest, and in checking the phlogosis of the said membrane. Two very illustrative dissections are given of this obliteration of the cartilages. In one, the disease only affected the knee-joint—in the other, the hip-joint, the elbow, and the articulation of the lower jaw were the seat of the lesion."—*Medico-Chirurgical Review, July*, 1827, *from the Bibliothèque Méd. Jan.* 1827.

MATERIA MEDICA.

29. *Hydrocyanic Acid.*—Dr. Schneider has employed this acid as an external application to herpetic eruptions, and with signal advantage, even in cases of long standing, and which had resisted the usual remedies. He uses a drachm and a half of the acid, mixed with six ounces of alcohol, and sometimes to prevent too much irritation, adds six ounces of rose water.—*Rust's Magazine*, 21 *B.*, *S.* 569.

30. *Atropia and Hyosciamine.*—A German physician, Dr. Kopp, recommends the injection of a solution of atropia into the rectum to facilitate the operation for fistula in ano, and to relieve also the spasmodic contractions of that intestine. He thinks also, that we may dilate the neck of the uterus in difficult parturitions by this remedy. As an internal remedy, he thinks the hyosciamine much preferable to any of the preparations of opium, as it has not the disadvantage of irritating mucous surfaces.—*Annales de la Médecine Physiologique, June,* 1827.

31. *Nitro-Muriatic Acid Baths.*—Dr. Bernhard of Leipzig, has used these baths with advantage in chronic engorgements of the liver, and the diseases arising from it, as icterus, ascites, hydrothorax, &c. and in herpes, secondary syphilis, &c.—*Bulletin des Sciences Médicales.*

32. *Belladonna in Scarlatina.*—In the last volume of the *Philadelphia Journal of the Med. and Phys. Sc.* will be found some observations which are highly favourable to the efficacy of the belladonna as a preservative against scarlatina. Dr. Lehman has published, in the twenty-second volume of *Rust's Magazine*, a memoir, in which he observes that an epidemic scarlatina prevailed at Torgau, in 1825, of so violent a character that one in eight of those afflicted with it died, and that thirty patients, all of tender age, fell victims to it. The belladonna was administered, with confidence, in many families, in which the disease appeared, and there could be no doubt of the good quality of the extract employed, nevertheless it did not act either as a preservative, nor did it mitigate the violence of the disease. Dr. L. did not perceive any difference either in the violence of the disease, or its results, when it attacked those who had taken the belladonna, even for a long time and in large doses, and those who had never taken the medicine.

33. *Alcoholic Extract of Nux Vomica in Rheumatic Paralysis, and in the incontinence of Urine in Children.*—"A young man, an amanuensis, was suddenly attacked with difficulty in moving the right arm, and presently also with pain. When M. Mauricet, his physician, first saw him ten days afterwards, the shoulder and arm were very tender and swollen, and the forearm was always kept in a half-bent position, and in a state of pronation. Anodyne embrocations removed the pain in the course of eight days; but the patient could not execute the movements of the shoulder-joint at all. Half a grain of the alcoholic extract of nux vomica was then given twice a day in the form of pill. The movements of the joint soon afterwards gradually returned. At first they were involuntary and limited in extent; but by and bye they became much more free, and the patient acquired the command of them. After sixteen days of this treatment, during which the pills were increased to four daily, the joint was restored completely to its natural state.

"Two boys, one thirteen, the other fourteen years of age, had been liable from their infancy to nocturnal incontinence of urine. M. Mauricet, who was consulted by their father, resolved to try the effect of the extract of nux vomica, and gave each of them half a grain night and morning. In three days the incontinence disappeared, and it did not return so long as the remedy was taken In fifteen days the remedy was discontinued, but the malady returned soon afterwards. The nux vomica was resumed, and with the same success.

was again omitted, and the complaint again returned. At last the extract being again resumed, and taken without intermission for a month, the children were radically cured."—*Ed. Med. and Surg. Journ. July,* 1827, *from Archives Générales de Médecine, Mars.* 1827.

---

34. *Action of Belladonna on the Pupil.*—"Some discrepancy having manifested itself on the extent of this action, from the different results of experiments in different hands, the conclusion seems to be deducible, that where the quantity of the belladonna employed is small, the dilatation is confined to one eye. M. Ehlers, on wakening in the morning, inserted in one of his eyes a portion of the extract not larger than the seed of a millet, and the consequence was, that the pupil of that eye only, (the other retaining its natural state,) continued greatly dilated for ninety-three hours, during which he could see with it perfectly well. If the quantity employed is considerable, both eyes are affected in the same manner; but the dilatation continues in the one to which the belladonna has been applied long after it ceases in the other. It may be added, that the effects of the drug are energetic and durable, in proportion to the quantity; and that it acts with greater readiness, but less duration when the subject is young."—*Lond. Med. Rep. August,* 1827, *from Archives Générales, for May.*

---

35. *Camphor in Rheumatism.*—M. Amable Cheze has communicated to the Medical Society of Lyons, many cases of acute rheumatism cured by general fumigation with camphor; he assists the profuse perspiration which it induces by appropriate means.—*Ann. de la Méd. Phys. April,* 1827, *from the Compte Rendu, par J. M. Pichard, D. M.*

---

36. *Pomegranate as a remedy for Teniæ.*—D. Antonio Bigti, of Pisa, in a paper in the *Nuovo Giornale di Letterati*, details his experience with the pomegranate, (punica granatum,) as a remedy against teniæ: he observes that it is the most certain and efficacious remedy he has found, but that much depends on the mode of preparing it. The part used is the bark of the root, this is most powerful and prompt in its operation in a fresh state, he details a case in which he gave a decoction of ℥i. of the fresh root in a pint and a half of water boiled down to one-half, to be taken in two doses at an hour's interval—in ten minutes after the last dose the patient passed a worm. He gives the following directions for its use drawn from a great number of trials.—The patient should take a dose of opening medicine the day before the decoction is taken—the bark should be taken from the roots of young plants—of the fresh root the dose is as given above: when dried, ten drachms are to be infused in cold water for twenty-four hours, and then boiled away one-half, this decoction is to be given in three doses—one every hour.

PRACTICE OF MEDICINE.

37. *Bleeding in the Cold stage of Intermittent Fever.*—In the *Edinburgh Medical and Surgical Journal,* for April, 1827, there is an interesting paper, by Dr. Mackintosh on this subject. Believing, correctly, that the difficulty of breathing, the tremors, the pain in the head, the coma, and other symptoms of the cold stage, are owing to congestions of blood in the brain, lungs, liver, spleen, and other internal organs, Dr. M. determined to try the effects of blood-letting, and he had the boldness to practice it first on himself, in 1810, when harassed with an ague which resisted the usual remedies. Before twelve ounces of blood were drawn, the rigors ceased, with all their unpleasant concomitants—there was no hot or sweating state—a pleasant sense of heat succeeded the painful one of cold, and instead of weakness, he felt stronger

He subsequently tried it on a number of other individuals, and with a similar result. He asserts, "that blood-letting in the cold stage, in every case in which it has been yet tried, has cut short the cold fits, and has prevented the subsequent stages of the paroxysm, so that the hot and sweating stages are saved It seems to operate by anticipating the natural efforts of the constitution, removing the internal congestion, and restoring the lost balance of the circulating system." "I have seen," says he, "men in the most severe sufferings relieved, after the abstraction of six, eight, and ten ounces of blood. I have known three ounces suffice, and, on one or two occasions only, I had to bleed to the extent of two pounds. The relief, which is the most perfect relief that can well be conceived, is so sudden, when a good orifice can be made, that it has surprised and delighted every one who has seen my practice." Eight cases are detailed by Dr. M. to illustrate the above mode of treatment.

In a paper published in the *London Medical and Physical Journal* for July, 1827, Dr. Ridgway has adduced several interesting observations, in favour of the treatment recommended by Dr. Mackintosh. In 1810, having lost three or four patients successively in the cold stage of intermittent fever, and led by a similar train of reasoning to that adopted by Dr. Mackintosh, Dr. Ridgway determined to anticipate the paroxysm, and to detract so much blood from the venous system as might be sufficient to meet the effect of the approaching concentration. From the period this practice was adopted no fatal case occurred from congestion, and it became his established mode of treatment.

"Early in the year 1813, while the army was yet in winter quarters on the frontier of Spain, a soldier was received into the regimental hospital of the third battalion Rifle Brigade, who was first seen in the second paroxysm of a tertian intermittent, so fully formed as to afford no hope of its interruption According to custom, the period of accession was marked, for the purpose of noting the time at which blood-letting was to be performed, so that it might immediately precede the following paroxysm. About an hour, then, as near as could be calculated, before this was expected to show itself, I presented myself at the hospital, but found that the paroxysm had anticipated its former period considerably, and that the cold stage was now distinctly formed. Disappointed at this, and anxious to save the man from a third paroxysm, as violent in all probability as the former, I determined to proceed, regardless of this unexpected obstacle, and took from his arm about twelve ounces of blood. To my utter astonishment, the cold, and other stages of the paroxysm, glided away imperceptibly, the disease was gone; and, after awaiting the next period of accession, the soldier returned to his duty, and never after made his appearance at the hospital."

Having thus been forced by circumstances to employ blood-letting in the cold stage of a paroxysm of intermittent fever, and the success being complete, Dr. R. felt quite satisfied of its safety and efficacy, and he says, "had I deemed it necessary in any future instance, I should have had no hesitation in resorting to it."

38. *Diseases of the Skin.*—Drs. GRAVES and STOKES have published in the fourth volume of the *Dublin Hospital Reports*, some highly interesting observations on the efficacy of the physiological treatment of cutaneous diseases We hope in our next, or in the subsequent number, to present some cases successfully treated upon this plan, by our coadjutor, Dr. Jackson; at present, as the treatment of these diseases in this country, is very generally empirical, we shall give a full analysis of the observations of Drs. Graves and Stokes.

Case 1.—A young girl was admitted 25th October last into the Meath Hospital, labouring under the severest form of psoriasis, affecting not only the scalp, face, and extremities, but almost the whole surface of the body. A most abundant desquamation of silvery white scales was constantly taking place—skin almost universally of a bright red colour and very itchy—pulse 100, strong —complained of thirst, but had good appetite, and in other respects appeared healthy. By bleeding twice, low diet, the repeated application of leeches to the most inflamed parts of the surface, and the use of a pint of the decoction of sarsaparilla with two drachms of super-tartrate of potash daily, the cutaneous inflammation was subdued; recourse was then had to the use of sulphur internally, and warm baths containing sulphuret of potash. For some time the disease seemed to diminish under this treatment, but it afterwards appeared stationary. Recourse was then had to tar ointment, and afterwards to a mixture of tar and citrine ointments. "The parts to which the ointment was applied were well cleansed every day, either by means of diligent washing with soap and water, or with water containing a solution of caustic potash, as directed by Dr. Duffin. The warm baths and the internal use of sulphur have been continued; she uses a diet consisting chiefly of bread and milk, and is now almost completely well."

"In squamous diseases, more limited in their extent, we have successfully used a similar method of treatment; except that in such cases general blood-letting may be often dispensed with, as the repeated application of leeches to the affected parts is sufficient to subdue the active inflammatory stage of the disease. The only difficulty which occurs in the treatment of squamous diseases, is to determine the proper period for leaving off the local antiphlogistic applications, and changing them for stimulants. The latter, if applied too soon, will aggravate the disease, and when this is found to be the case, they should immediately be laid aside, and the application of leeches, poultices and cooling lotions be again resorted to."

As yet Drs. G. and S. have met with no case of scaly disease which has resisted the above method of cure.

Drs. G. and S. have also employed this treatment in chronic pustular and tubercular diseases.

Case.—"*John Knowlan*, aged 16, was admitted into the hospital early in December, 1825, covered with the most aggravated form of general porriginous eruption. The head, face, elbows, hands and wrists, were particularly affected; on the hands there was the most enormous accumulation of scabs, arising from the discharge of numerous pustules. The nails were thickened, contorted and split. A continual steam arose from his arms and hands, and the odour of the body was most disgusting. Indeed it would be difficult to convey in words a proper idea of his loathsome appearance. The eruption chiefly affected his scalp, face, and extremities; on the trunk there were but few pustules. The skin of the trunk was however red, rough with papulæ, and the cuticle fell off constantly in dry scales. The skin of the extremities was red and hot. He had occasional rigors and constant thirst, but was not emaciated. Under these circumstances it was determined to treat him on the antiphlogistic plan. He was, in consequence, bled twice to a considerable amount, freely purged, and used several warm baths; by those means he was greatly improved, the skin of the body had lost much of its inflammatory redness, but the hands were still loaded with the dried scabs, red, and constantly exhaling a dense vapour. They were leeched, and warm poultices applied over the recent leech bites. He continued using the warm bath, and took an electuary of the super-tartrate of potash, with sulphur. In the course of a week the bleeding and leeching were again repeated with great benefit; so much indeed had the inflammatory symptoms subsided, that it was thought adviseable to order him small doses of the arsenical solution. Under this plan he continued for some time, but the symptoms not yielding, this medicine was omitted, and he took the infusion of dulcamara without any perceptible benefit. The antiphlogistic plan was then recurred to, the head was shaved and poulticed, he was freely purged, and took several tepid baths; by this treatment every inflammatory symptom subsided, the head become clean, and the skin lost its red colour, but was still covered with small white scales in such abundance, that when he took off his shirt, a cloud of them would rise around him. The hands were still covered with thick scabs, but had lost their inflammatory appear ance. The pulse was slow, and the bowels freely open. The phlogistic diathesis being thus somewhat subdued, he used the sulphur bath, and an ointment consisting of equal parts of the dilute citrine and tar ointments was applied to the hands and head, with the greatest benefit· the scabs fell off, and a fine new cuticle covered the palms of the hands. Thus he continued for about ten days, during which time he had been put on a more generous diet. He now experienced a return of the eruption over the whole body, especially on the breast; it came out in the form of minute pustules, which quickly dried, leaving the surface covered by thin scabs. The skin was hot and red, and the pulse indicated great activity in the circulation. He was ordered to be bled, and was again freely purged. The *blood was buffed and cupped.* Great relief followed this operation. The skin lost its red colour and itchiness, and the pulse was reduced in strength and frequency. He was ordered to take no animal food. The baths were repeated, and his bowels kept freely open by the electuary of cream of tartar and sulphur. Under this treatment he rapidly improved, and after some time was even enabled to recur to the use of the tar and citrine ointments, which together with warm baths, completed the cure in a few weeks. He is at present, (December 15, 1826,) in good health, and quite free from the least trace of cutaneous eruption."

Drs. G. and S. have found a similar treatment efficacious in a case of sycosis menti, and have also used it with very marked success in porrigo of the scalp, or scald head. "Recent cases of porrigo yield readily to the application of leeches to the head, and poultices, repeated until the inflammation of the scalp is subdued." The formation of these pustules, be the case chronic or recent, are the result of inflammation, and their development will cease, with the removal of their cause; the cure may then be easily completed by the judicious use of the tar and citrine ointments. The first step, of course, in the treatment of all cases of porrigo, "must be cutting the hair, and the diligent use of emollient poultices, alkaline lotions, &c. until the scabs are softened and removed, after which the head should be shaved. Even in cases of long standing, we have found the greatest benefit to arise from leeching the head, and now almost always commence the treatment in this way. Recent cases however require a more frequent repetition of the leeches, and a stricter antiphlogistic general treatment than chronic cases. In several cases of scald head, where circumstances prevented us having recourse to leeches in the first instance, we have substituted, with advantage, poultices, with an ounce or two of liquor acet. Plumbi. In children this will often succeed in reducing the high inflammatory action. In one case only did the continued use of the acetate of lead produce symptoms like the colica pictonum."

The constitutional treatment must vary with the patient's peculiarities as to health. "In strong healthy children cooling aperients and a spare regimen will much facilitate the cure. In the weakly and emaciated, change of air, attention to the bowels, a more nutritious diet, and a judicious use of tonic remedies, may be combined advantageously with the local antiphlogistic plan, and in such the cure of the cutaneous complaint, by removing a constant source of irritation, will materially tend to restore the health.

"There is no doubt that the sudden drying up of cutaneous diseases has occasionally produced dangerous internal complaints. This danger does not seem to attend their cure by the antiphlogistic treatment, which, when prudently conducted, *diminishes the tendency to inflammatory action in the constitution, and does not, like merely local applications, destroy it in one part only to re-appear in another.*"

39. *Colica Pictonum.*—Two cases treated by Dr. Graves yielded very readily to strong tobacco stupes applied to the abdomen, followed up by cathartic pills, containing croton oil, the operation of which were promoted by a purgative injection.—*Dublin Hospital Reports, Vol. IV.*

40. *Paralysis after Colica Pictonum.*—A case treated by Dr. **Graves** received great benefit from the use of strychnine, as recommended by Magendie.—*Ibid*

41. *Treatment of Sloughing Ulceration of the Mouth, produced by Mercury.*—Drs. **Graves** and **Stokes** record two cases of salivation and death produced in children by small doses of calomel. The inefficacy of the ordinary remedies, determined Drs. G. and S. to proceed, should another case occur, on other principles. A girl to whose head half an ounce of mercurial ointment was applied, had her mouth on the subsequent day affected, and before three days had elapsed, the inflammation about the jaws, face, and mouth, had made such formidable progress as to threaten the life of the patient. Viewing the sloughing ulcerations as a consequence of previous excessive inflammation of the parts, Drs. G. and S. attempted to prevent their formation by moderating the inflammation. This was accomplished by frequently repeated applications of leeches to the most swollen parts. The bleeding from the leech bites was encouraged by emollient poultices; none of the stimulating gargles, usually so injudiciously recommended in excessive salivation, were allowed; the antiphlogistic regimen was enjoined, and the patient recovered. The above case offers a very happy illustration of the influence of the physiological plan of treatment.—*Ibid.*

42. *Treatment of Drowning and other Varieties of Asphyxia.*—"Some experiments and observations of considerable importance have lately been made at Paris on the circumstances which modify the effects of two of the chief remedies for asphyxia—namely, insufflation of the lungs, and galvanism. The author, M. **Leroy d'Etoiles**, has succeeded in throwing some light on the variable results which have been procured by these modes of treatment by almost every person who has employed them.

"With regard to Artificial Respiration, he has found that it requires much more cautious management than is generally believed; for if the air be blown into the lungs with too great force, they become unfit for their function. This he says he has found by repeated experiments on rabbits, dogs, and sheep. The following results were procured with the sheep, an animal whose lungs approach nearest in point of volume to those of man. An incision being made into the windpipe, and a silver tube secured in it by a ligature, a single forcible inspiration was made through the tube with the mouth, and the tube and ligature were immediately withdrawn. In the course of a single minute the animal became agitated and restless, made forcible efforts to inspire and expire, was then seized with convulsions, became motionless and senseless, and the pulse ceased in three or five minutes. If the carotid artery was opened during these symptoms, the arterial blood was observed to become rapidly more and more dark and venous. These phenomena were remarked in four successive experiments. In other three made with the same animal under the same circumstances, except that the insufflation was performed less rapidly, the breathing was not arrested so suddenly, but became at first embarrassed, and gradually more and more so, till at length death took place in about fifteen minutes from the beginning of the experiment. The symptoms under which these animals died, clearly indicated death by asphyxia, and the appearances in the dead body were conformable. The cause of the production of asphyxia under forcible insufflation is not very apparent; at least M. Leroy has not hitherto succeeded in throwing any light upon it. In the second variety of cases, the air-cells of the lungs were probably ruptured, and a communication between them and the cavity of the chest even established through the pleura, for the lungs could not be dilated after death. But in the first variety, in which death took place immediately, the same injury was not produced. The practical conclusion, however, to be drawn from his experiments is manifest and important—namely, that in performing artificial insufflation, the bellows ought never to be worked forcibly; and we may add another reason for cautioumanagement of them—that the operator is not perhaps, always aware how great the force is which he employs in working them. With the bellows a far greater force is easily put forth, than can ever be employed with the mouth, which was M. Leroy's instrument. If M. Leroy, however, is correct in considering the forcible expansion of the lungs as the cause of death in his experiments, the objection which applies to the forcible use of the bellows in the human subject, does not apply so pointedly to forcible insufflation with the mouth; because the operator subjects his own lungs to the same pressure as those of his patient, so that his own lungs will enact in a manner the part of a safety-valve, provided he is not superior in strength of chest to his patient.

"The other topic which forms the subject of M. Leroy's remarks, is the application of Galvanism to the treatment of asphyxia. It is well known, that although this remedy has been sometimes found singularly useful, it has very often failed and not unfrequently it has even appeared to do harm. M. Leroy thinks he has discovered the cause of its failure. When the galvanic current is applied in such a way as to affect the diaphragm, it is most always applied continuously, in which case the contractions are irregular, and do not constitute a natural inspiration. But if the current is suspended as soon as the muscular contraction begins, then a complete inspiration is produced, and the regularity of the subsequent expiration is not interrupted: on connecting the galvanic circle, a new contraction is produced, which in like manner causes a natural inspiration, if the circle is again interrupted. The plan recommended by M. Leroy, and adopted in his experiments, is to insert a fine acupuncture needle between the 8th and 9th ribs, till it reaches the attachments of the diaphragm, for which purpose a length of a few lines is sufficient—and then alternately to complete and interrupt the galvanic circle, by touching the needle with one conductor at the proper intervals, while the other is kept permanently in the mouth."—*Ed. Med. and Surg. Journ. July*, 1827, *from Archives Génerales de Médécine, Nov.* 1826.

43. *On the Treatment of Poisoned Wounds by Ligatures round the Limb.*—"M. Bouillaud has made some farther experiments on this subject: and they tend to confirm what is now pretty well established, that a ligature applied between the heart and a wound into which a poison has been introduced, will prevent or suspend its deleterious effects. His experiments were made with strychnia. The only novelties in them are the proof that it may be applied to the extremity of a divided nerve, without any of its usual effects ensuing—and a much more important result, namely, that by alternately relaxing and tightening the ligature at proper intervals, an animal, into which a fatal dose has been introduced may be alternately affected and relieved, till the whole poison has been absorbed, and has exhausted its energy. The author does not seem to have been aware of this practical application of the facts he observed. It is evident, that with regard to such poisons as opium, strychnia, and hydrocyanic acid, the system possesses the power either of discharging or decomposing them. Hence even after they are beyond the reach of direct extraction, their effects may still be controlled by art, if the physician can succeed in admitting them into the circulating system by little and little; for each successive portion is decomposed, and the poison has not an opportunity to accumulate in the blood to a sufficient extent to prove fatal. These views result from the experiments of M. Bouillaud, now mentioned, and likewise from those of Dr. Barry on the effects of dry cupping, when applied to wounds poisoned with the active vegetable poisons."—*Ed. Med. and Surg. Journ. July*, 1827, *from Archives Génerales de Médecine, Nov.* 1826.

44. *Ascites Treated by Graduated Pressure.*—"A woman who had been affected for several months with ascites, was received into the clinical establishment at Parma, under the care of Professor Speranza. The ascites was the result of chronic puerperal peritonitis: the patient had been debilitated by a

prolonged lactation, and was already hectic. Digestion was badly performed, the urine was scanty and turbid, and the abdomen tense. Purgatives, combined with squills, mercurials, drastic medicines, &c. had been employed without any good effect. Professor Speranza being unwilling to have recourse to paracentesis, determined to try the effect of compression of the abdomen; and employed the bandage recommended by Monro. From the time when this was commenced the urine began to flow, and became very abundant; more than fifteen pounds being passed in a day. In the course of seven weeks the abdomen was reduced to its natural size, and presented no sign of effusion. Professor Speranza then treated the case with sulphate of iron, squills, decoction of lichen mixed with milk, and a nourishing diet, without, however, discontinuing the pressure of the abdomen. The fever soon decreased, digestion improved, the woman regained her strength, and went out of the hospital in good health, which she yet continues to enjoy."—*Lond. Med. Rep. July*, 1827, *from Annali Universali di Medicina.*

---

45. *Idiopathic Glossitis.*—Dr. Graves relates in the fourth volume of the *Dublin Hospital Reports*, the case of a medical student, who was attacked with severe febrile symptoms, ushered in by violent rigors, great pain in the neck, and occiput. The left half of the tongue then became very tender and painful—gradually increased in size, and when Dr. G. first visited the patient, was so enormously swollen as nearly to fill the mouth, which could scarcely be closed on account of the protrusion of the tongue. The right half of the tongue, was perfectly natural, and its comparatively diminutive size formed a striking contrast with that of the left, the median line forming a perfect boundary between the swollen and the healthy parts. Part of the tongue appeared on the verge of gangrene, but two or three applications of six leeches at a time to the inflamed part produced a speedy decrease of the tumour and inflammation, but the left half of the tongue, after a lapse of two years, is still perceptibly increased in size. Idiopathic glossitis is a rare disease, a few cases only being recorded, and in none of these was the inflammation confined to one-half of the tongue, nor in any of them was leeches applied to the affected part. Dr. Gottel applied leeches under the tongue, and pushed actively the antiphlogistic treatment; the same was done by Dr. Maillier. In addition to these remedies, Dr. Olivet used local detractions of blood from the tongue, at first by means of incisions in the dorsum of the tongue, and afterwards by opening the sublingual veins. Dr. Graves considers the application of leeches as preferable to either, in this opinion we fully agree with him.

---

46. *Chronic Diarrhœa.*—"There are many forms of this disease evidently dependent on ulceration or other organic lesion of the mucous membrane of the bowels, the consequence, or at least the sequence of dysentery. But there are some other cases of obstinate diarrhœa, where the disease goes on for years, and where dissection, after all, detects no organic change in the intestines. Dr. Baillie has described 'a particular species of purging,' which is but little known, and has generally proved fatal. The alvine discharges resemble a mixture of lime and water, with froth on the surface. It most commonly occurs in people who have resided in warm climates, and suffered from hepatic affections; but not exclusively in this class. When the disease is in a mild form, the evacuations are of the consistence of pudding, and of a pale colour. Under such circumstances, and especially if the motions be occasionally figured, the patients may live many years with the complaint. They have usually a sallow countenance—are thin, but not greatly emaciated—have tolerable appetites—white coated tongues. Nothing particular can be detected when the abdomen is examined by the hand. There is no tumour—no pain on pressure—but the bowels are generally distended with air. Dr. Baillie never had an opportunity of examining any patients who died of this disease, and therefore could not speak as to its pathology. But Mr. Wardrop, in a note to his

edition of Dr. Baillie's works, informs us that he, (Mr. W.) had an opportunity of dissecting a patient who had been under Dr. B.'s care in this complaint, and that he found considerable thickening of the coats of the rectum and colon, great contraction of the calibre of the gut, with small, but deep ulcers interspersed over its surface. Dr. Seymour and Mr. Arnot, however, have each had an opportunity of examining the intestinal canal in this complaint; but in these instances, there was no breach of structure or organic alteration of any kind in the large or small intestines.

"We have been induced to notice this subject in consequence of a remedy which has been introduced of late by Dr. Elliotson, at St. Thomas's Hospital—namely, the sulphate of copper, combined with opium. This zealous physician has given the remedy in a considerable number of cases of chronic diarrhœa, where all, or almost all other remedies had failed, and with complete success, in every instance. The dose is generally half a grain twice a day, with half or a grain of opium, increasing the dose to two or three grains in the day, but seldom beyond that quantity. We understand that Dr. E. made experiments with the opium alone, which failed to cure the patients—and the reason why he combined it with the sulphate of copper, was to prevent the latter from causing pain in the stomach and bowels.

"Dr. E. is inclined to view the remedy in respect to its modus operandi, as simply an astringent, but when we reflect on the power which this sulphate possesses of allaying irritability when applied to external sores, we shall be induced to attribute much of its success in these cases, to its action as lessening morbid irritability of the intestinal canal. But as Dr. Elliotson's observations will probably soon be published, we shall defer any farther remarks till that period."—*Medico-Chirurgical Review, July*, 1827.

47. *Mercurial Frictions in Puerperal Peritonitis.*—M. Velpeau has published in the *Revue Médicale, for Jan.* 1827, a memoir on the use of mercurial frictions in puerperal peritonitis. Having seen forty or fifty patients die, notwithstanding the application of leeches to the abdomen, general depletion, and the other usual modes of treatment, M. V. concluded that the disease when once established, is rarely benefited, but often rendered worse by blood-letting, whether general or local, and he determined to use mercurial frictions, so highly recommended by the surgeon of the public hospital of Antwerp. Accordingly he has employed it in several cases, and he thinks that he is authorized to draw the following conclusions from the facts which he has observed.

"1st. That puerperal peritonitis, once completely established, and abandoned to itself, is almost invariably mortal.

"2d. That it remains yet to be proved that sanguineous depletion *alone* is adequate to the cure of the disease.

"3d. That the writings of Hamilton, Gordon, and Vandenzande incontestibly prove that, by means of calomel, in large doses, many cases of puerperal peritonitis, of the most severe kind, have been saved.

"4th. That mercurial frictions over the abdomen, made at short intervals, promise considerable success, and that this ought to draw the attention of the profession to the said point of practice.

"5th. That, by means of mercurial frictions, patients have been rescued, as it were, from the brink of the grave; and consequently that this remedy should be tried, however late in the disease.

"6th. That the friction should be continued, without fear, until the mouth becomes affected—and, in most cases, for some time after all the symptoms have subsided.

"7th. That it would probably be advantageous to conjoin the internal administration of calomel, warm baths, and warm temperature.

"8th. That the facts observed by the authors, without being sufficiently numerous or conclusive, are yet such as may encourage, authorize, nay compel practitioners to prosecute the inquiry."

M. V. recommends two drachms of the mercurial ointment to be rubbed in on the surface of the abdomen every two or three hours. After two or three frictions, should the symptoms not be ameliorated, he directs the abdomen to be anointed with oil, and washed with soap and water, and the frictions to be renewed. This treatment is to be continued some time after marks of salivation have shown themselves. The patient is to be kept in a temperature considerably elevated, and carefully guarded against cold currents of air.

We should be pleased to know upon what principles M. Velpeau can explain the fact which he asserts, viz. that in the cases he has treated sanguineous depletion totally failed, if it did not occasion actual harm, while the mercurial frictions always mitigated the abdominal pain and tension, and, on more than one occasion, seemed to place the patients out of actual danger. It is true, he gives it as the result of his experience, and after all, experience must decide the value of this mode of treatment. But it should be recollected that experience not unfrequently leads us astray, and when its results are at variance with the conclusions of reason, we should receive its dictates with proper caution.

OPHTHALMOLOGY.

48. *On the Inflammation of the Membrane of the Aqueous Humour.* By Dr. WEDEMEYER.—A scrofulous, rheumatic, and arthritic predisposition, contusions of the eye, and inveterate syphilis, Dr. Wedemeyer considers as capable of producing the inflammation in question. The signs which he has observed to characterise it, are, little pain in the eye or external redness; want of transparency of the internal surface of the cornea, at the commencement, although the external surface remains moist and shining; subsequently small opaque spots on the internal surface, and cloudiness of the cornea. The aqueous humour is also cloudy, it is secreted in unusual quantity, and constitutes a true acute dropsy of the anterior chamber; the patient becomes near-sighted, (myoptic,) his sight is much affected; often the march of the disease is very rapid, blood is effused in the anterior chamber, and afterwards pus: sometimes the inflammation extends to the iris, the colour of which part then changes. These symptoms disappear more or less slowly under the influence of an antiphlogistic and revulsive treatment, but collyria and other local means are of little utility.—*Langenbeck's neue Bibliothek für die chirurgie und Ophthalmologie; tom.* 4. *p.* 66.

---

49. *Observations on the Inflammation of the Capsule of the Aqueous Humour, Chronic Iritis following the operation of Keratonyxis, &c.* By Dr. G. C. SCHINDLER.—Dr. Schindler relates two cases of inflammation of the serous tunic of the aqueous humour. The diagnosis which he indicates, differs but in a few particulars from that of Dr. Wedemeyer. He asserts that the colour of the iris undergoes no change, but that the pupil closes, and sometimes takes an unnatural figure. The lymph poured out in the anterior chamber form bands uniting the different surfaces, and sometimes produce a false membrane which closes the pupil. The inflammation terminates always by secretion, and never by suppuration; Dr. Schindler thinks that internal sympathetic ophthalmiæ, hitherto considered as appertaining to iritis, have their seat rather in the serous membrane.

In the two cases which he has treated, calomel and the extract of belladonna were of great service, and he considers them as the best means that can be employed to cure the disease.

He considers simple inflammation of the serous capsule of the anterior chamber of the eye, contrary to the opinion of Professor Langenbeck and Dr Wedemeyer, as different from the inflammation which sometimes follows the operation of keratonyxis, because the latter is more complicated and slower in its progress. Dr. Schindler does not entertain so unfavourable an opinion of keratonyxis as Dr. Wedemeyer and Professor Langenbeck: he has seen only a single instance of inflammatory symptoms succeeding that operation, and in this case a single bleeding relieved it; he advises that the cornea should be punctured more towards its centre than inferior part, because we thus avoid the danger of wounding the iris, the movements of the needle are less extensive, consequently there is less pressure on the lips of the wound, finally because the cicatrice, always trifling, speedily disappears totally.—*Ibid.*

50. *Deep-seated Inflammation of the Eye.*—Mr. Bury relates in the *Medico-Chirurgical Review,* for July last, an interesting case treated by Mr. Wickham, which shows in a very striking manner the control of mercury over iritic inflammation, and its power of effecting the absorption of the effused lymph.

Case. A woman, æt. 21, corpulent and florid, has had a slow but continued inflammation in the right eye for two years, during which her vision has gradually become more and more indistinct, till, at last, it is lost. No appearance of inflammation of the conjunctiva or sclerotica—pupil immoveably contracted, its edge surrounded with a margin of lymph, of a brownish colour—suffers much from deep-seated pain of the eye-ball. Considering it a case of chronic inflammation of the iris and choroid, and understanding that the usual antiphlogistic treatment had been fully and repeatedly gone through, calomel with opium was at once given, and as soon as the mouth was affected, which was in five days, an evident amendment took place in the vision, and a slight mercurial action being kept up, she by degrees recovered her sight completely. Soon after this the left eye was attacked with deep-seated inflammation, which was treated by a renewed excitement of the mercurial action. These attacks after a time, were again and again renewed, and only yielded to the repetition of the mercurial action. At the close of an attack of inflammation quin. sulp. gr. iij. three times a day were administered, in the hopes of destroying the disposition to a repetition of the attack. Slight attacks of superficial inflammation occurred subsequently, but in the course of three weeks she appeared well.

51. *On the Artificial and Accidental Evacuation of the Anterior Chamber of the Eye.* By Dr. Basedow, of Mersebourg.—Dr. Basedow considers the evacuation of the anterior chamber of the eye as the dernier resource in cases of ophthalmia, threatening to terminate in suppuration and destroy vision, and he represents it as capable of saving the eye in almost desperate circumstances. He has performed the operation only in four instances, but these were all crowned with success. He divides the cornea at its most dependent part, and makes the incision but one-third the extent required in the operation for cataract. In the cases in which he operated, the aqueous humour flowed with the pus, and the evacuation was repeated, as the chamber became refilled, until the incision healed. The cornea recovered its transparency, a few days after the operation, and the cure was perfect. Dr. B. endeavours to explain the favourable effect which the evacuation of the anterior chamber exercises over the progress of inflammation of the anterior parts of the globe, and cites the cases of disease where the spontaneous or accidental evacuation of the aqueous humour, frequently repeated, is either useful in preserving the organ, or, at least, is without any real danger to vision. Among these are certain scrofulous and rheumatic ophthalmias, with superabundance of aqueous humour, extreme tension of the eye, and ulceration of the cornea, which gives exit to the fluid, and thus relieves the internal compression, and in the second place certain traumatic lesions of the globe, of which the author gives some examples.—*Bulletin des Sc. Med. from Journ. für Chirurg. und Augenheilkunde, t.* viii. *p.* 594.

52. *Hypopion.*—Dr. Gizel, in a late work on this disease, recommends, if the inflammation does not yield to antiphlogistics, that the matter should be

vacuated, not only when it exists in the anterior, but also when occurring in the posterior chamber of the eye; and in this latter case he proposes to make an opening into the posterior chamber through the sclerotica. Dr. G. has performed this in a single instance only, but with complete success.

We do not believe that this mode of evacuating the pus has any advantages, and cannot advise an imitation of the practice.

SURGERY.

53. *On the Treatment of Tetanus.*—Every means which offers the slightest prospect of affording relief in this truly indomitable disease, is deeply interesting to the profession. Dr. Marsh, in a paper in the *Dublin Hospital Reports*, vol. iv. proposes to treat it by placing the patient, for many successive hours, in a vapour bath of a low temperature; and at the same time to powerfully uphold and support his strength. Dr. M. relates three cases in which this plan was tried. The first was a boy about six years old, in whom the symptoms of tetanus came on gradually, several days after an injury in the great toe. The paroxysms were severe and frequent. Purgatives not acting on the bowels, and opium not mitigating the symptoms, he was placed in a vapour bath, the heat of which was not allowed to rise beyond ninety degrees. He remained in the bath six hours, was purged actively with croton oil, and a liniment of extract of belladonna and oil of amber was very frequently rubbed along the spine. This treatment was persevered in for many successive days, (the bath being employed, uninterruptedly, for four, six, and sometimes eight hours at a time,) and the patient slowly recovered. On removing him from the bath, it was found that the sore, which had been foul and unhealthy, began to improve in appearance.

The second case was a very severe one, it was that of a boy twelve years old; the disease arose from an injury to the ankle joint. The uniform effect of the vapour bath, was to abate the violence of the symptoms, without however, influencing the rigidity of the muscles. The tetanic symptoms, however, disappeared thirty hours before death. The patient died worn out, after a protracted disease.

In the third case, ptyalism, without benefit, having been established, it was resolved to put the man in the vapour bath, which was steadily persevered in for many successive hours, daily, and often during the night, until every symptom of the disease had gradually subsided. In this case Dr. R. says "the severity of the symptoms were remarkably diminished by the bath."

Our views of the pathology of tetanus have led us in two cases, the only ones that have come under our care, to treat them by a different mode. Believing it to be an inflammation of the spinal marrow and its membranes, we treated one case principally by general and topical depletion, the latter being effected by cups along the spine. In the second case we trusted principally to topical depletion; a double row of cups were placed along the whole spinal column, so many of them were scarified as enabled the operator to detract the quantity of blood we thought the patient should lose, and the remainder were kept on an hour. Both cases proved fatal; it is, however, right to add that neither of them were very favourable cases of experiment. The first was a man of extremely nervous temperament, and the second an habitual drunkard. Notwithstanding our want of success, should we be called upon to treat another case, we should be disposed to pursue a similar plan. We would substitute leeches, however, for cups.

In the *Annales de la Médecine Physiologique*, for February, 1827, M. Lasserre has related four cases, all of which were cured. The treatment consisted principally in general, and more especially local depletion along the spine.

the epigastrium and the muscles which were the seat of spasm. The second case was one of traumatic tetanus.

M. Broussais, in his remarks on the paper of Dr. Lasserre, ridicules the use of opium in the disease, as it produces, he says, disorders of the stomach and head, which reacts upon the spinal affection. He also abstains from the use of violent purgatives; considering the constipation to be the consequence of the affection of the spinal irritation, and to be remedied by the removal of the cause. He recommends for that purpose general bleeding, and especially topical depletion, by leeches applied along the spinal column, and upon those muscles to which an excess of nervous influence is directed.

M. Carron reported last year, to the Medical Society of Lyons, five cases of tetanus; three of them were traumatic, two of which, and both the cases of idiopathic tetanus, were cured. They were treated by M. C. by leeches and blood-letting, principally the former. The case that terminated fatally was treated, in the first instance, with opium and musk; M. C. was called in late in the disease, and employed depletion by leeches, but without success. On dissection, the membranes of the spinal marrow were found red and injected; small vessels not visible in a natural state of the parts, were apparent in the spinal marrow, which was reddish, and floated in a great quantity of a colourless serous fluid, particularly in the cauda equinæ; the right portion of the diaphragm was contracted and as hard as parchment, the left part was natural; the mucous membrane of the stomach was of a dull red, and presented here and there small black ecchymosed spots; the solar and semilunar plexuses were of a deep red; all the other organs were in a natural state.

---

54. *Abscess of the Liver.*—A robust man was admitted into the new Meath Hospital with acute inflammation of the liver, which terminated in abscess. A very distinct feeling of deep-seated softness was soon perceptible to the touch, yet the abscess showed no tendency to point outwards. The external tumour being very diffused, and of course the situation of the abscess quite uncertain, the surgeons of the hospital disapproved of any attempt to open it; but as the man's constitution was rapidly giving way, Dr. Graves proposed that an incision about four inches long should be made exactly over the centre of the tumour, and continued if possible to within one or two lines of the peritoneum, in the hopes that the abscess might finally burst through it. The operation was performed by Mr. Mac Namara, yet the abscess was not felt more distinctly. The wound was plugged at its bottom with lint to keep it open, and two days after, upon the patient's sneezing, a large quantity of pus burst forth through the wound. The matter however came from one side and not from the bottom of the wound, the incision not having been made exactly over the abscess. Dr. Graves thinks that this mode may prove serviceable in similar cases, many of which have hitherto been considered beyond the reach of art.

It has been recommended by Mr. Porter in deep-seated abscesses, pressing on the larynx and trachea, (Vide Philadelphia Jour. Med. and Phys. Sc. vol. 14, p. 371,) and we think it will be found useful in many cases of deep-seated abscess.—*Dublin Hospital Reports, Vol. IV.*

---

55. *Case of ununited Fracture of the Arm, successfully treated by Pressure. By* M. Brodie.—A man aged 24, in Nov. 1825, fractured his right arm, the accident was treated in the usual manner, but bony union did not take place. In August, 1826, a seton was passed between the fractured extremities of the bone. The seton was *withdrawn* at the expiration of *a week*. Some inflammation causing the surrounding soft parts to become consolidated and thickened, must have followed the operation, as it was supposed that a cure had been effected. When the inflammation however subsided, the bones were as loose and moveable as ever.

"On the 29th of November, 1826, the man was admitted into St. George's

Hospital. At this time the broken ends of the bone appeared to be united by ligament, admitting of extensive motion. They rode considerably one over the other, and the limb was somewhat shortened. The following plan of treatment was adopted, founded on a principle suggested by Mr. Amesbury.

The forearm being placed in the half-bent position, a wooden splint, adapted to the half-bent figure of the limb, was applied on the inside extending from the axilla to the fingers; a straight splint was then placed on the outside of the arm, extending from the shoulder to the outer condyle; and these splints were secured by bandages. On the outside of all, a tourniquet was applied, the band of which embraced the limb in the situation of the fracture. By turning the screw, which was on the outside of the arm, additional pressure was made on the fractured bones; and it was easy to regulate the pressure, so that it should be as great as possible without occasioning much distress to the patient. The curved wooden splint in the outside being broader than the limb, and only slightly concave, the principal blood-vessels were defended from pressure, so that, whatever force was employed for the purpose of keeping the fractured ends of the bones in close contact, the circulation of the limb continued nearly uninterrupted.

" This plan having been pursued for about six weeks, it was found that the fractured bones admitted of much less motion than before. At the end of three months, no motion whatever was perceptible; but, by way of security, the use of the apparatus was continued for another month.

" On the 31st of May the man left the hospital, having been for some time allowed the free exercise of the limb, without splints or bandages, the bones being firmly consolidated, and the limb as useful as it was before the accident." —*Lond. Med. and Phys. Journ. July*, 1827.

We are induced to notice the above case for two reasons, 1st, because the mode of treatment resorted to is ingenious and novel, and it may occasionally be useful to resort to it, but we are far from believing that it will succeed when the seton fails—the above case cannot, we think, be cited to the contrary 2d, because it shows the common cause of failure in the attempts to cure artificial joints by the seton. In these cases long continued inflammation must be kept up, and therefore, Dr. Physick, the author of the practice, directs that the seton should not be withdrawn for four or five months, unless bony union earlier takes place. (Vide Dorsey's Surgery, vol. I. p. 127.) In the first case in which Dr. Physick used the seton *no amendment was perceived fo twelve weeks*, but in *five months* the cure *was complete* and the arm as well and strong as it had ever been. Instead, however of keeping the seton in the limb for sixteen or eighteen weeks, it is usually removed in as many days, or even " at the expiration of a week," and it is then announced as a failure!

—

56. *Case of Inflammation of the Tongue cured by Incisions.* By **Charles Martin**, of the Island of Mull.—A stout healthy man aged thirty-five, was attacked in the evening with acute pain in his tongue, at first so circumscribed tha it could be covered with the point of the forefinger. The pain was attended with a most distressing sensation of heat, and a feeling as if the tongue wa gradually and uniformly enlarging. Violent throbbing of the lingual arteries—restlessness—rather feverish—head-ache—saliva adheres tenaciously to the roo of the mouth and surface of the tongue. The tongue rapidly increased in size, protruded from the mouth, separating the jaws to the extent of half an inch Between twelve and two o'clock the patient applied to Mr. Martin. At thi period the tongue occupied so large a portion of the mouth that Mr. M. coul scarcely introduce his little finger between it and the upper jaw. Tongue smooth and hard to the touch, thickly coated with viscid mucus, its point presented a glistening appearance owing to the tension. Mr. M. immediately took thirty ounces of blood from the arm, and an hour afterwards repeated th bleeding to a similar extent. Three hours afterwards Mr. M. found the disea-

had rapidly advanced, respiration through the mouth totally suspended, and breathing through the nostrils even attended with difficulty—countenance flushed and anxious—pulse fluttering—breath offensive—in short the patient was threatened with immediate suffocation. Believing that the only remedy by which the patient's life could be saved was the knive, Mr. M. had his head properly secured, the mouth opened as wide as possible, and introduced a scalpel with its flat surface along the tongue, and made a *deep* incision in the most prominent part of the right side. On withdrawing the scalpel a quantity of blood, mixed with *puriform* matter issued from the wound. Two incisions were afterwards made, one in the middle, the other on the left side of the tongue, but no purulent matter followed. The bleeding was promoted by the use of warm water. The patient was promptly relieved, in a quarter of an hour could articulate words pretty distinctly, and his respiration became free and easy.—*Ed. Med. and Surg. Journ. July*, 1827.

57. *Case of Cynanche Laryngea, in which the operation of Tracheotomy was Successfully Performed.* By **Francis White**, Esq. of Dublin.—The ill success that has usually attended the operation of tracheotomy, in inflammations of the larynx and neighbouring parts, has almost deterred surgeons from resorting to it, but temporary relief being afforded by it, at the expense of a painful operation. The following case, therefore, in which the operation was attended with complete success, will be read by the profession with great interest. We condense the account from the fourth volume of the *Dublin Hospital Reports*.

John Duff, æt. 33, was attacked with cynanche laryngea, followed by some effusion in the trachea. The usual remedies were employed, but without affording any relief, and the patient was threatened with suffocation. Under these circumstances, Mr. White determined to open the trachea, which he did in the following manner, assisted by Messrs. Carmichael and Roney. "Having made the external incision of sufficient length, and cut through the fascia, I came down to the muscles, and on separating the edges of the sterno-thyroid muscle, the two thyroid veins were exposed, together with a considerable arterial branch,* the pulsation of which was quite perceptible, directing its course upwards towards the cross slip of the thyroid gland: having pressed aside the artery and one of the veins with my finger a little to the right, I then cleared away some cellular membrane, and laid bare the trachea: a sharp-pointed bistoury being now introduced between two of its rings, I cut directly upwards about half an inch in length, when the air escaped with considerable force, and much muco-purulent matter was expelled. Finding a mere division of the part not sufficient to allow a free discharge of the accumulated fluid, which was of a viscid ropy nature, I cut off lateral slips of the cartilages, which leaving ample space, the patient breathed with freedom, and expectorated large quantities of mucus. I attempted to introduce a silver canula into the wound, but the irritation from the necessity of continually withdrawing and replacing the instrument in order to carry off the mucus rapidly collecting about the mouth of the aperture, at length compelled me to abandon the use of the tube. In fact, as the parts lay sufficiently open I determined not to interfere any further, at least for the present. His improvement was now most evident, and it was gratifying to witness his sudden relief from impending suffocation. A careful pupil was left with him to wipe away the discharge which occasionally obstructed the inner opening causing temporary distress and difficult breathing."

Nothing interesting occurred except a severe ptyalism; which reduced the patient much, until the sixth day, when the external wound began to granulate and close; Mr. W. cut away the granulations, and was enabled to introduce a leaden canula, which the patient bore without uneasiness, "and from which he seemed to derive considerable relief. He made several attempts to breathe through the glottis, but to no effect, and on the 14th of April, his former symptoms returned, and became so urgent that I was obliged to enlarge the opening. I had introduced an ivory canula of a conical shape, and slightly curved, which filled up the entire opening, but was only admitted so far as to lie in contact with the edges of the tracheal aperture. This instrument has answered so well, that the patient at present wears it attached to a leathern stock which he buckles behind his neck, and is sufficient to keep the tube in its proper situation. It is occasionally taken out in order to wipe away the mucus which gathers about it.

---

* From the situation of this artery there can be no doubt of its being that branch which Mr. Harrison, in his work on the Surgical Anatomy of the Arteries, describes under the appropriate name of Middle Thyroid Artery; and though looked upon as an irregular distribution, yet from its frequent occurrence, the surgeon should be on his guard, as wounding an artery in such depth of parts might be attended with most embarrassing circumstances during the operation.

"It is now two years since the operation was performed, and the patient, whom I saw this day, (March 17,) has during that time worn the tube without any inconvenience, or being in the least prevented from working at his trade. The sides of the opening, which is of an oval shape, and one inch in depth to the trachea, are perfectly healed, smooth, and covered with a thin cuticle. The rima glottidis still remains closed, yet not so much so but to yield to slight expiration, while he is incapable of performing the act of inspiration through the glottis or of speaking without closing the aperture of the canula with his finger. On examining the fauces, the epiglottis appears thickened and standing erect."

58. *Singular Variety of Hernia, treated by* B. C. Brodie, Esq. A middle-aged woman was seized in the evening with pain in the abdomen and sickness. After straining violently in the act of vomiting, she discovered an unusual appearance, which led her to believe that she had suffered a miscarriage. The following evening she was admitted into St. George's Hospital.

"At this time not less than two yards of small intestine, with a corresponding portion of the mesentery, were seen protruding through the anus. The whole mass bore marks of a high degree of inflammation, and the intestine was much distended with air and liquid fæces. On examining the rectum with the finger, it was found that there was a transverse slit on the anterior part of it about two inches above the anus, through which the protrusion of the small intestine had taken place. On attempting to reduce the protruded intestine, at first it readily re-entered the anus, but, when about one-half of it had disappeared, the reduction became difficult, and about one-fourth part of it could not be reduced at all. In fact, no method could be devised by which even a part of it could be made to pass through the slit in the rectum, so as to resume its natural position in the peritoneal cavity. The pressure of the hand caused the small intestine to ascend into the rectum, where it lay only as long as this pressure was continued; and nothing further in the way of reduction could be accomplished.

"Under these circumstances, Mr. Brodie made a longitudinal incision of the linea alba, about two inches in length, below the umbilicus. The incision was continued through the peritoneum into the cavity of the abdomen; and the fingers being introduced at this opening, by gently pulling the small intestine, that portion of it which had protruded through the slit of the rectum was readily drawn back into the abdomen. It having been ascertained, by examining the rectum with the finger, that the reduction was completed, the edges of the wound in the linea alba were brought together by sutures.*

"After the operation, the pulse was scarcely perceptible; the extremities were cold; and the patient was sick, throwing up again immediately whatever she swallowed. In about two hours the pulse was somewhat stronger, and the extremities were warmer; but the restoration of the vital powers was imperfect, and after some hours they again began to fail, and the poor woman died about six o'clock the next evening.

---

* During the operation, a part of the small intestine protruded through the wound of the linea alba, but it was readily replaced after the reduction of that which had protruded through the opening in the rectum was completed.

"On examining the body, the peritoneum generally was found much inflamed, and in many parts covered with a layer of coagulated lymph. That portion of the intestine and mesentery which had formed the protrusion was, however, less inflamed than it had appeared to be previously to the operation. There was a transverse opening in the anterior part of the rectum, without any marks of ulceration in the neighbourhood; whence it was concluded that the opening was the result of accidental laceration."—*Lond. Med. and Phys. Journ. June*, 1827.

59. *Chloride of Soda and Lime in Chilblains.*—"M. LISFRANC announces, that the result of his application of these preparations to chilblains, both ulcerated and not ulcerated, continues to be successful. The former have uniformly been cured in a fortnight, and the others in four or five days. He covers the parts affected with a compress charged with cerate, upon which a considerable mass of lint is laid, wetted with the chloride. The apparatus must be kept constantly wet. Intense inflammation does not counter-indicate the use of this remedy; it is merely requisite to dilute or increase its strength, according to the degree of pain which follows its application."—*Archives Générales.*

60. *Extirpation of the Parotid Gland.*—In the second volume of the Heidelb klin. Annalen, there is an account of an operation for the extirpation of a sarcomatous parotid gland, successfully performed.—*Bulletin des Sc. Méd.*

61. *Acupuncture.*—"Mr. EARLE lately employed this mysterious remedy in a case of obstinate sciatica, which had resisted every other method of treatment. Two needles were introduced, to the depth of an inch, near the sacrum, and kept there a quarter of an hour. The sciatica almost immediately ceased, and the patient passed a quit night, for the first time during some months. The old enemy returned, though not in force, a few days afterwards, and was finally routed by a couple of needles."—*Medico-Chirurgical Review, July*, 1827.

62. *Seton in Preternatural Joints.*—Evidence is constantly accumulating of the value of the seton in the cure of ununited fractures, as recommended by our esteemed friend and coadjutor, Dr. Physick. In the fourth volume of the *Dublin Hospital Reports*, Dr. Brown has related a case of a gardener, aged sixty, who received on the 3d of August, 1825, a compound fracture of both bones of the right leg, and was admitted on the 7th of September into the Meath Hospital, with his general health much impaired, and no appearance of union in the fracture. By proper treatment his health improved, and the fracture of the fibula had united on the 5th of November, but there was soft union between the ends of the broken tibia, allowing of motion. A seton was passed by a fistulous opening through the course of the fracture, and on the 8th of February he was discharged cured.

63. *Nævi Materni.*—"Among the novelties of medical practice, we may mention a curious remedy for nævi materni, first employed, we understand, by Mr. Hodgson, of Birmingham, and now in course of trial by some surgeons of London. It is vaccination of the nævus, in several points of its surface by the specifiic inflammation of which, it is said, the nævus is arrested in its progress, or caused to slough. We recommend our surgical brethren to try this easy and simple remedy.*

"We apprehend, however, that no plan will be equal to that of the ligature. If the tumour be too large for a single ligature to surround it, a needle should be passed under the centre of the nævus with a double ligature, and then the two halves surrounded in the usual way. We believe that Mr. Lawrence ties the ligature very tight, and cuts it away at the end of 48 hours, to lessen irritation. A great number of nævi, of various sizes have been removed in this manner by metropolitan surgeons, of late, without a single bad consequence."

---

* [illegible] succeeded under Mr. Earle, at Bartholomew's.

In one of the volumes of the Transactions of the Medico-Chirurgical Society of London, Mr. Wardrop published a paper on a natural cure which nævi materni sometimes undergo by spontaneous ulceration. He has since imitated this natural cure by applying a strong solution of oxymuriate of mercury to a nævus on a child's back; the skin ulcerated rapidly, destroying the substance of the tumour. Two cases are reported in No. 181 of the Lancet, in which a similar practice was adopted with success.—*Medico-Chirurgical Review, July,* 1827.

64. *Excision of Carious Joints.*—The success which attended, in many cases, the removal of the protruding extremity of the bone, in compound dislocation of the shoulder, elbow, and ankle joints, led Mr. **Park**, of Liverpool, to believe that in certain diseases of the joints, the excision of the carious extremities of the bones might be attended with similar advantage. Accordingly, on the 2d of July, 1781, in a case of scrofulous disease of the knee, he extirpated the whole joint, removing more than two inches of the femur and one inch of the tibia. The operation was completely successful, the man, (a sailor,) returning to his business, and performing all the duties of a seaman.

In 1782, M. Moreau, (the father,) presented to the Academy of Surgery of Paris, a memoir, in which he proposed the excision of carious joints as a useful substitute, in some circumstances, for amputation. In 1786, he communicated to the Academy, "an account of an operation in which he removed the head of the humerus, and the corresponding glenoid cavity of the scapula, which were carious." "In 1789, he addressed a memoir to the same society, explaining his new method of treating carious joints;" and "on the 17th of September, 1792, he removed the whole of a carious knee joint," in the presence of Baron Percy and others. The operation was attended with success. M. Moreau, (the son,) relates* several other cases in which the operation of removing the shoulder, elbow, and ankle joints was perfomed with complete success, by his father, by Baron Percy, and by himself.

The above evidences of the advantages attending the excision of carious joints—the complete success which Baron Percy has met with, in removing the shattered extremities of the bones, in gun shot wounds of the joints—and the astonishing success that has attended the removal of the extremities of the long bones, when they have protruded through the soft parts, in compound dislocations; to say nothing of the cases of excision of carious joints, recorded by White, Bent and Orred, induced Mr. Crampton to revive the operation of Mr. Park; an operation which had not been repeated in Great Britain till performed by Mr. Crampton, on the 4th of February, 1823. The operation was successful, and Mr. C. has since repeated it in two instances. These operations if not followed by all the advantages that might be wished for, prove, at least, that the operation is a safe one, that even so large an articulation as the knee joint may be excised with safety, and give grounds for hope that, under favourable circumstances it may be attended with success. We condense the details of the cases.

Case 1.—A soldier, æt: 23, of distinctly marked scrofulous aspect, with a white swelling of the right elbow joint of about ten months standing, the swelling extending at least a hand's breadth above and below the joint; suppuration over the inner condyle of the humerus, and an opening that had degenerated into a large and irregular ulcer, at the bottom of which the bone could be felt carious; health impaired; pulse 120, and feeble; far advanced in hectic fever; was sent into the general hospital, for the purpose of having his limb removed, which was considered the only means of preserving his life

---

* "Cases of Excision of Carious Joints."

Thinking this a fair case for performing Mr. Park's operation, Mr. C. performed it on the 4th of February, 1823, in the presence of a great number of surgeons, in the following manner:—"the patient was placed, (as recommended by M. Moreau,) upon his belly on a table covered with a mattress, and pillows so arranged as to make his posture as little inconvenient as possible; the diseased arm hung over the edge of the table, presenting its posterior and inner surface to the operator: the brachial artery being compressed by an assistant, an incision was now made along the spine of the inner condyle, commencing about four inches above, and terminating about two inches below, its tuberosity. This incision passed through the centre of the ulceration, and laid bare the ulnar nerve, which was carefully raised from its groove, and drawn to the inner side of the incision.* A similar incision parallel to the first, was made on the outer side of the humerus, and then a transverse section, which cut through the tendon of the triceps muscle, immediately above its insertion into the olecranon, connected the two longitudinal incisions, so that the wound represented pretty accurately the letter H; the lateral incisions, however, being slightly incurvated, so as to follow the bend which the forearm made with the arm. The upper flap, consisting of the lower extremity of the triceps muscle, the thickened and diseased cellular substance, and integuments, was raised from the flat surface of the humerus, to which it had a very slight attachment; the lower flap was separated in the same manner, so as to lay bare the upper extremity of the ulna and radius; the scalpel laid on its flat surface was now pushed between the flexor muscles and the bone on its anterior surface, at the distance of three inches above the tuberosity of the inner condyle; and retained in this situation by an assistant. The saw was then applied, and the bone was divided immediately over the flat surface of the knife, which served as a protection to the muscles beneath. The separated portion of the humerus was now raised with the utmost ease by the finger and thumb of the left hand, while the capsular and lateral ligaments, degenerated to the state of a lax cellular substance, were separated by running the knife round the condyles, keeping the edge as closely as possible to the bone. The lower extremity of the humerus being removed, the articulating surfaces of the radius and ulna were completely exposed; but with the exception of the cartilage which covers the olecranon, (which was partially eroded,) every thing appeared sound. The olecranon was now removed, and the wound was sponged out; as there was no bleeding which rendered it necessary to have recourse to a ligature, the flaps were laid down, and secured to each other by four points of suture. The forearm was placed at a right angle with the arm; the wound was covered with pledgets of lint wetted with spirits and water, and the man was laid in bed, with the arm supported on a suitable pillow."

The patient passed the night well; suppuration with slight symptomatic fever, set in on the fourth day, but every thing proceeded favourably. On the ninth he sat up in a chair. The wound, however, was slow in healing, and Mr. C. sent the patient to the sea-side, five weeks after the operation, where he recovered so rapidly, that on the following week he walked to town, a distance of nearly five miles to see Mr. C. On the 18th of September "the wound, with the exception of a small superficial ulceration about the place which had been occupied by the inner condyle, was completely closed; the arm, when allowed to hang by the side, retained nearly a semi-flexed position. but by a voluntary effort he was able to give a slight degree of flexion to the forearm, so as to lessen the angle which it formed with the arm. He had the use of the fingers, so as to be able to use his knife and spoon; and on the 27th of Nov. 1823, *he signed his own discharge with the right hand.*" The constitution of the patient was so bad that an abscess subsequently formed in his loins. In what way this terminated is not known, which is to be regretted, for though of no importance with respect to the success of the operation, it is of some in reference to the propriety of performing it.

---

* From neglecting this precaution in M. Moreau's case, the ulnar nerve was cut across, and the ring and little finger were deprived of the powers of motion.

Case II.—" Susan Connolly, æt. 23, of a strumous habit and emaciated appearance, marked by several scars of scrofulous ulceration, some of which are still open on the left hand and arm. The right knee is considerably enlarged, of an irregular shape, projecting much to the inner side over the head of the tibia, and measuring three inches and a half more than the sound knee, the surface smooth, white, and shining, but marked by the ramifications of large blue veins. Severe pain, much increased by pressure, or by the slightest motion, is felt through the joint: a small ulceration under the inner hamstring discharges a great deal of thin greenish-coloured matter; the joint is permanently contracted, the leg forming a very acute angle with the thigh; pulse 96, and feeble; skin rather hot; tongue white, with red edges; appetite bad; tendency to diarrhœa; gets but little rest, from the pain of the limb; catamenia not present for the last two years. Disease commenced about twelve months ago, but the contraction of the joint, the severe pain, and the alteration of her health are but of six months standing. The usual treatment had been adopted, but without even temporary relief. For the last six weeks she has had regular attacks of hectic fever, accompanied with profuse perspirations and diarrhœa, which even opium does not control."

The excision of the joint was performed in the following manner. " An incision, commencing about three inches above the outer condyle, and a little below the axis of the femur, was continued to about an inch below the head of the fibula. The acute angle, which the leg formed with the thigh, necessarily gave to this incision the form of a crescent. In making the incision the knife was carried down to the bone; a similar incision was made on the inner side of the joint. The lateral incisions were united by a transverse cut carried below the patella. The flap, thus formed, was raised by a rapid dissection, and the cavity of the joint was completely exposed: for the extent of more than three inches above the condyles the femur was without periosteum, the purulent matter lying in contact with the naked bone. At the point where the periosteum appeared to be united with the bone, the saw was applied, and the bone was divided, the soft parts being protected by a spatula which was passed between the muscles and the bone. The separated portion of the femur was now dissected out, and so slight were its connexions with the soft parts, that this part of the operation, which I expected would have been attended with some difficulty, was effected with the greatest ease. The articulating surface of the tibia was now fully exposed; it was totally deprived of cartilage, and was in a state of caries. By means of a strong and short knife, such as is used by shoemakers, I was enabled to pare away about half an inch of the head of the tibia, the cancelli of which were loaded with a lardaceous matter, and with pus.

" The cavity of this great wound was now sponged out, when upon minutely examining the cut suface of the femur, I found that the cancelli were diseased and filled with pus, and that posteriorly the periosteum was detached from the bone. I therefore sawed off about an inch and a quarter more of the femur. On placing the extremities of the femur and tibia in contact, the flap containing the patella was found to be about three inches too long, and as the patella itself was totally deprived of its cartilage, and in a state of caries, the exceeding portion of the flap including the patella, was removed by a transverse incision. No artery was divided which required the application of a ligature. The flap was retained in its position by two points of the interrupted suture, and compresses wetted in spirits and water were laid over the wound. The limb was now placed in position in one of Assellini's " carrying splints," which had previously been carefully adapted to the size and length of the limb, it extended from above the trochanter major on the outside, and from the ramus of the pubis on the inside, to about four inches below the foot, it was supplied with a sole piece, which supported the foot, and was carefully padded with a mixture of baked hair and wool."

The woman bore the operation well, the wound united by the first intention, and was healed in three weeks. On the 12th of September she was attacked with an epidemic erysipelas, which attacked the affected leg and thigh, succeeded by an abscess, which burst through the old sinus in the ham, and continued to discharge for three or four weeks and then healed. She subsequently suffered from two or three attacks of erysipelas, each of which terminated in the formation of matter. She was discharged, June 27, 1824, in very good health; but no bony union had taken place between the femur and tibia. In the winter of 1825–6, hearing that she was in bad health, and living in great poverty in a damp cabin in the country, Mr. C. had her brought to the hospital. She was in a wretched state of health—had suffered repeated attacks of hæmoptoe—had cough, with purulent expectoration and night sweats. "She had no pain in the limb, but there was a general thickening about the joint, as if the disease had been reproduced, and the sinus in the ham continued to discharge a thin whey-coloured matter. By suitable attention her health again rallied, and she returned to the country in the month of May, 1826." Shortly afterwards her health again declined, and she died in July, 1826. On examination, the posterior part of the femur, above the condyles, was found in a state of necrosis, deprived of periosteum, the walls as thin as card paper, and the medullary cells loaded with pus.

Case III.—"Ann Lynch, æt. 22, a strong, and remarkably good-looking country girl, with dark hair, blue eyes, and sallow complexion, but presenting no peculiar character of a strumous habit, was admitted into the Meath Hospital, on the 3d of May, 1823. About four years ago, she was seized with a sudden and severe pain in the right arm. The pain soon left the arm and settled in the right knee, which, from that time, continued to be, more or less, affected with severe pain, principally confined to the inner condyle. The pain was much increased by pressure on either condyle, by the slightest motion, and by the heat of the bed, at night. The joint became perfectly stiff, and a good deal contracted, so that she could only touch the ground with her toe when standing on the left leg, and the swelling which for the first few months was inconsiderable, gradually increased, and is now of a very great size, globular in its form, elastic to the touch, of a dusky red colour towards the inner side, and the surface intersected by numerous and large blue veins. She describes the pain as being excruciating, particularly at night time. Within the last two months, symptoms of hectic fever have manifested themselves, but upon the whole, her appearance is not very unhealthy. She has lost but little flesh, and the treatment, both local and constitutional, to which she has been subjected since her admission into the hospital, has abated the pain, and improved her general health."

On the 4th of August the operation was performed, as in the case of Connolly, but the patient was so ungovernable that four strong assistants could with the utmost difficulty, retain her on the table. This necessarily prolonged the operation, and, no doubt, increased its severity. The patella, which was carious, was removed with the lower portion of the flap; but the articulating cartilage of the tibia appeared sound; the greater part of it, however, was pared away, and the semilunar cartilages, of which only the inner one exhibited any marks of disease, removed.

"The treatment was conducted, in all respects, as in the case of Connolly, with this difference, that I was obliged to resort to a variety of contrivances to keep the limb in position. The same unmanageable disposition, which caused so much embarrassment during the operation, greatly interfered with her recovery. Nothing could induce her to remain for one moment in any position which she found was attended with inconvenience, the consequence of these constant changes of position, was, that the extremity of the femur was often protruded through the wound. Notwithstanding all this, and the occurrence of a large sloughy sore on the buttock, in consequence of an insufficient attention, upon her part, to cleanliness, her general health was but little [illegible] peared: a small exfoliation took place from the extremity of the femur, and in about two months she was removed from her bed to a chair. In about four weeks after the exfoliation of the femur, the wound was completely healed, and the limb had acquired a considerable degree of firmness. About six months after the operation the femur and tibia were consolidated by a firm bony union, and the woman, though timid beyond all example, began to lay her foot gently to the ground, supporting the weight of her body, however, on crutches." She now went into the country; and in October, 1824, walked nearly five miles. November 3, 1826, Mr. C. examined the limb. "The femur and tibia are firmly consolidated: the leg and thigh are not in the slightest degree wasted, but the limb is considerably bowed outwards. She wears a shoe with a cork sole, four inches thick; and, to use her own expression, 'is able to stand or walk the length of a day.'"

Should Mr. C. repeat the operation of excision of the knee joint, he intends to adopt a different mode. He has satisfied himself, "from repeated trials upon the dead subject, that the operation can be most safely and rapidly executed by separating the condyles from all their attachments, previously to sawing the bone; as soon, therefore, as the flap containing the patella is turned upwards, the edge of the knife should be carried round the condyles, close to the bone, so as to divide *all* the ligaments which connect the femur with the tibia: the tibia can then with great ease be pushed backwards, and as much of the projecting condyles can be removed as the operator may think necessary." —*Dublin Hospital Reports, Vol. IV.*

We have given a very full account of these operations, although it occupies more space than we usually allot to one subject, in this department of our Journal, since we conceive the details to be of great importance in estimating the value of the operation.

The above cases have been brought forward to show the safety of the operation, a fact they sufficiently prove, even when performed under exceedingly unfavourable circumstances; but there is another question of equal importance to be decided, and that is, the expediency of performing it; and it is as bearing upon this point, that we have thought it right to give full details of the cases. These we think, make it sufficiently evident that when the patient is of a decidedly scrofulous constitution, is wasted with hectic fever, and the disease is extensive and has continued for a length of time, the relief from the operation will be but temporary, and will not compensate for the sufferings attendant on the operation; the first and second cases prove this. Under more favourable circumstances, however, the operation may, no doubt, be resorted to with advantage; as it was in Mr. Crampton's last case.

---

65. *Empyema.*—A man was brought to the hospital with a punctured wound in the thorax, he had symptoms of a large effusion of blood in the right cavity of the chest, this arose from a division of one of the intercostal arteries, the artery could neither be tied nor a direct exit to the blood given, the treatment consisted in a proper position of the patient, venesection amounting to one-hundred and twenty ounces in forty-eight hours and acid nitrated drinks; a few days after the accident the patient passed large quantities of blood with his urine, and in the space of twenty-four hours was entirely relieved of all the empyematic symptoms, and was convalescent in five days.—*Bibl. Ital.* 1826.

---

66. *Extirpation of the Parotid Gland.*—Dr. **Manfredini** of Modena, has performed this operation twice with happy results; the first on a countryman in whom the tumour was exceedingly large, being three inches and a half in height by twelve in circumference, involving the whole angle of the jaw, and reaching nearly to the mouth. The operation was rendered difficult from its implicating the external carotid from which it received several large vessels—ten of which were obliged to be tied; the patient recovered perfectly except a slight distortion of the mouth. The second operation was on a lady of Mo-

dena, in whom the gland was in a cancerous condition—this was also completely successful.—*Biblioteca Ital.* 1825.

67. *Lithotomy.*—Professor Giorgi appears to have been very successful in the results of his operations for the stone by Vaca's method. Of twenty-eight patients operated on, twenty-five were cured.

68. *Emphysema.*—M. Vitry relates in the Archives Générales de Médicine for March, 1827, a case of emphysema of the subcutaneous tissue of the whole body, supervening to a convulsive cough, in a little girl twenty-six months old. M. V. gave issue to the air by numerous incisions, and thus cured the little patient.—*Annales de la Médecine Physiologique.*

MIDWIFERY.

69. *Resuscitation of apparently Still-Born Children.* By J. Toogood, Esq. Member of the Royal college of Surgeons, London.—"Having recently met with a case of an apparently still-born child, which was recovered after an unusual length of time, I am induced to lay an account of it before the public, because from my experience in many cases, I believe a very large proportion of children, apparently dead-born, may be resuscitated, if proper means be resorted to, and persevered in for a sufficient length of time. But the modes generally employed to restore life, such as immersing the infant in warm water, friction, and pouring stimulants down the throat, are not at all calculated to produce the effect intended; and, if these means do not succeed after a short trial, all further attempts are generally abandoned. The plan I always adopt, which has never failed where the child was living during the birth, is very simple and only requires perseverance. I hope, therefore, I shall not be occupying the time of your readers unnecessarily by detailing some successful cases, under circumstances by no means favourable, which I have selected from a great many more.

"Grace White, a very weakly woman, far advanced in consumption, was seized in the morning with uterine hæmorrhage, which continued slightly till the evening, when I saw her; and, while standing by her bed-side the flooding increased with such violence that I thought it best to deliver her instantly. The child was still-born. As soon as I had removed it from the mother, and seen her safe from any immediate danger, I placed a napkin over the child's mouth, and inflated its lungs from my mouth pressing out the air from the chest afterwards, and thus imitating natural respiration. After having continued this process for thirty-five minutes, the child made a very slight attempt to breathe, and the face became slightly suffused; by persevering ten minutes longer, the free action of the lungs was established and the child cried lustily.

"The next case was that of a poor woman, named Sarah Holmes, of the parish of Spaxton, who had been in labour a long time with a presentation of the arm, and as it was her first confinement, it became very difficult to turn the child, particularly as she was advanced in age, and the parts were very rigid. The child was still-born; but, by pursuing the same plan actively for three quarters of an hour, animation was perfectly restored.

"The next was a case of presentation of the funis; and, as the labour was slow, the child was still-born, but recovered by the same means in half an hour.

"The last case with which I shall trouble you was such as to encourage the attempt at resuscitation under any circumstances. It was a case of twins, and the second child presented with the head, before which a considerable portion of the funis had descended. The delivery was extremely slow, from the general weakness of the woman, who had been for a long time in a bad state of health, and the child was apparently born quite dead. As the mother's situa tion was extremely critical, more than half an hour had elapsed before I could attend to the child, and, on inquiry, I found it had been wrapped in a cloth, and placed on a chair in another room. I immediately made the attempt to restore it, and, by persevering steadily for twenty-five minutes, I had the satisfaction to see symptoms of returning life, and in about fifteen minutes more the child breathed freely.

"Every thing in this last case was unfavourable to the restoration of the child—the mother's long-continued disease, the circumstance of her having two children, and more particularly the delay which took place before any attempt was made, during which time the child was exposed in a room without fire in the winter, with a partial and very slight covering.

"I am warranted by my own experience in recommending the attempt to restore all still-born children who have been alive during the birth, and if the means of resuscitation above mentioned be actively employed and steadily persevered in, I believe the majority of cases will be successful. In all cases the restoration of a child is a most satisfactory circumstance, and in some instances of the greatest possible consequence. I have never found any thing necessary but the regular inflation of the lungs, which I do with my own mouth, in the way I have described, and have generally observed the first symptom of returning life to be a tremulous motion of the respiratory organs; the child next makes a very feeble attempt to inspire, and the colour of the face changes. The inflation should then be made quicker; and, as the attempts to breathe increase, a little sal volatile or brandy, rubbed over the palm of the hand, and held over the mouth during the inflation of air, will materially assist the recovery, and has a better effect than pouring stimulants into the stomach. A few smart slaps on the glutei muscles will now generally complete the recovery." —*Lond. Med. and Phys. Journ. August*, 1827. The author appears to think that the above method of resuscitating still-born children is novel. Dr. Dewees has been in the habit of employing it for nearly forty years. Vide Syst. of Mid. He relates also in his lectures cases of resuscitation as remarkable as the above.

70. *Successful Case of Transfusion in Uterine Hæmorrhage.*—In the July No. of the *London Medical and Physical Journal* another successful case of transfusion in uterine hæmorrhage is related by Mr. Douglass Fox. The patient was greatly debilitated by the flow of blood, the fœtus at the sixth month being expelled, and the placenta retained by an hour glass contraction. The hæmorrhage was arrested by the introduction of the hand into the uterus, and the placenta removed. But though the hæmorrhage had ceased, Mr. F. thought "there was every reason to apprehend the immediate dissolution of the patient from extreme exhaustion, as in this stage of the complaint she had become totally unable to articulate, to move, or to swallow; the pulse at the wrist was imperceptible, and the general appearance of the patient wore the aspect of death." Blood was injected into a vein of the arm, and the patient eventually recovered.

[The expedient of transfusion revived by Mr. Blundell, has been resorted to, within the last two years, in nearly a dozen cases, in most of which the patients are said to have recovered. We do not hesitate to believe these accounts, but we very much doubt whether the patient would have died, had the remedy been withheld. We believe this principally upon the following grounds. 1st. Because women bear excessive losses of blood without death following. 2d. Because the quantity of blood transmitted to the alien veins, does not appear sufficient to prevent death, since but a very few ounces have been declared to answer. 3d. Because the additional quantity of blood, though it increases by so much the stock of the patient, does not necessarily or contingently promote the tonic contraction of the uterus, without which, all "appliances and means to boot," will be found unavailing. 4th. Because we have never yet met with a case, where the dormant powers of the uterus could not be roused into successful action, if means were timely employed; were of a proper kind; and [illegible]

W P [illegible]

MEDICAL JURISPRUDENCE.

71. *On the Detection of Hydrocyanic Acid in the Bodies of Animals poisoned by it.*—M. M. Lassaigne and Leuret, some time since pointed out an extremely delicate test to detect the prussic acid in the bodies of poisoned animals, namely, the persulphate of iron or the persulphate of copper. Being desirous of ascertaining after how long a period the poison might be discovered, these gentlemen have since made experiments in which "animals were killed by hydrocyanic acid introduced into their food, or thrown into the stomach in a diluted state, the dose never surpassing more than an equivalent of five or six drops of the pure acid, or less than two drops: the animals were left after death for twenty-four hours in a chamber, and then buried in moist earth a foot and a half or two feet deep.

"The disinterment took place after various periods, from fifteen days to a month, and the stomach and the first portions of intestines being separated, were well divided and mixed with pure water, and distilled; a little sulphuric acid was added to the substances in the alembic, and the recipient was cooled by ice and water.

"The products were rendered slightly alkaline, and then tested by the persulphate of iron or sulphate of copper, and a little excess of muriatic acid was poured upon the precipitates occasioned by these salts. No prussic acid could be discovered in animals, the viscera of which were in a state of complete putrefaction; it was found after intervals of two or three days, but never after a longer period than eight days.

"From these experiments it appears, 1. That prussic acid cannot be discovered in animals poisoned by small quantities of it after exposition of these bodies for two or three days to the air. 2. That the disappearance of the poison in the viscera after a longer period than this is due to its decomposition, which is favoured by the contact of the putrescent animal matter. 3. That when it is necessary to examine a body judicially, to ascertain the presence of this poison, it is important that it should be done as quickly as possible."—*The Quarterly Journal of Science, Literature, and Art, from the Journ. de Chimie Méd* *Dec.* 1826.

---

72. *On the Detection of Antimony in Mixed Fluids.* By Edward Turner, M. D. &c.—Many reagents decompose tartar emetic, and cause precipitates in its solutions. Of these the principal are alkaline substances; the stronger acids, as the muriatic and sulphuric; the infusion of gall-nuts and sulphuretted hydrogen. Dr. Turner thinks that the last of these is the only one sufficiently delicate, certain and precise, to be entitled to confidence. On transmitting the sulphuretted hydrogen gas through a fluid containing antimony, the solution will acquire an orange colour, which can scarcely, he says, be mistaken for that of any other metallic sulphuret, by a person acquainted with its appearance. Its colour is quite different from that of orpiment, or of the bi-sulphuret of tin; and from the sulphuret of cadmium, to which it bears a greater resemblance, it is distinguished by its ready solubility in a solution of pure potash. The sulphuretted hydrogen merely indicates the presence of antimony,—without directly showing in what state it existed. This is of little consequence, however, in judicial cases, as all soluble antimonials are poisonous. Dr. Turner gives the following directions for the use of the test. "The fluid supposed to contain tartar emetic, should be mixed with a drachm or two of muriatic and tartaric acids, boiled for a few minutes to separate any substance coagulable by heat, and then allowed to cool, and filtered. The liquid should next be exposed to the action of sulphuretted hydrogen, and boiled to expel the excess of gas; after which the sulphuret will subside, if tartar emetic had been present." To obtain the metal in a separate state, Dr. T. recommends that the sulphuret obtained in the above manner, be placed in the middle of a glass tube about three inches long, and a quarter of an inch in diameter. "One end

of the tube is connected by means of a cork with a vessel from which hydrogen gas is evolved, and to its other extremity is adapted a bent tube, which opens under water, so as to conduct away the hydrogen, and at the same time exclude atmospheric air. After the air within the apparatus has been expelled, heat is applied by means of a spirit lamp to the part of the tube on which the sulphuret is placed. The decomposition of the sulphuret commences at a temperature by no means elevated; but in order to render it complete and fuse the antimony, the glass should be made red hot, and kept in that state for five or six minutes. The temperature at the close of the process may with advantage be increased to bright redness by the use of the blow-pipe.

"The appearance of the metal within the tube depends upon the manner of conducting the experiment. If the sulphuret had been placed in a heap, the metal is found partly in a spongy state, and partly in minute globules; but if it had been diffused over a considerable space, no globules appear, and the metallic lustre is indistinct. The metallic nature of the spongy mass may, in general be brought distinctly into view by placing it on a piece of white paper, and pressing it with the nail or the blade of a penknife.

"The results also depend on the velocity with which the hydrogen is transmitted through the tube. If the gas passes rapidly, some of the metal is hurried off at the moment of separation from the sulphur, and is deposited within the tube as a metallic film, which is sometimes very distinct. If, on the contrary, the passage of the gas is slow, this appearance does not take place.

"By means of this process, I have succeeded in procuring from the tenth of a grain of the sulphuret metallic antimony, the lustre of which could be distinctly seen with the assistance of a lens.

"Should a considerable quantity of animal or vegetable matter subside with the sulphuret, the metallic antimony will then be so mixed with charcoal that its lustre cannot be seen distinctly. In a case of this kind the mixture should be placed in an open tube, and heated to redness by means of a spirit lamp. The antimony is then oxydized, and the oxide, which attaches itself to the cool parts of the tube in form of a white powder, may be recognised by its appearance and volatility."—*Ed. Med. and Surg. Journ. July*, 1827.

---

73. *On Poisoning with the Sulphurets of Arsenic.*—"Several memoirs have lately appeared in the Parisian journals on the subject of poisoning with the sulphurets of arsenic; and as they explain some facts which have long appeared unintelligible, we shall present a condensed view of the whole. Till very lately it was believed, that, as the artificial sublimed sulphurets are much more poisonous than those of natural origin, some essential difference existed between them in chemical composition. M. Guibourt, however, has completely shown the cause of the differences in their physiological effects. For he has found that the artificial sulphurets always contain a large proportion of oxide of arsenic, sometimes so much as ninety-six per cent. This observation has been more recently confirmed by M. Courdemanche; and we may add that we have seen the cakes of sublimed orpiment lined on their concave surface with octaëdral crystals of the oxide. M. Guibourt, on the presumption arising from this difference, and from the known harmlessness of arsenic in its metallic state, ventured to hint, that the proper sulphurets, such as the native sulphurets, and that procured by transmitting sulphuretted hydrogen through a solution of the oxide, are not deleterious. But Orfila has contradicted this statement by positive experiments He found that when forty, sixty, or one hundred and twenty grains of the pure artificial sulphuret procured by precipitation, or of the native orpiment of Hungary, or the native realgar of Transylvania, were introduced into the stomach, or into the cellular tissue of dogs, death took place in two, four, or six days, under the usual symptoms of poisoning with arsenic. It is certain, therefore, that the sulphurets of arsenic, when perfectly pure, are poisonous; but they are much less so than the oxide. Their poisonous power appeared a remarkable and anomalous fact, considering that metallic arsenic has been proved

not to be poisonous in its pure state, or when alloyed with tin, or when combined with iron and sulphur in the ore mispickel or arsenical pyrites. But the anomaly has been accounted for by M. Courdemanche, who finds, (Jour. de Pharm. May, 1827,) that if the pure sulphuret of arsenic be boiled even in distilled water, a part of the water is decomposed, sulphuretted hydrogen is evolved, and the white oxide of arsenic is formed and remains in solution—that this change takes place in the cold, but much more slowly—and that it is very much accelerated by the presence of vegetable or animal principles in the water. In all likelihood, then, the sulphurets are poisonous merely because they are in part converted into the oxide. These observations will also account for the statements of Hahnemann regarding the solubility of the sulphurets of arsenic in water. They are insoluble as sulphurets, but will lose weight by boiling, because they are decomposed."—*Ed. Med. and Surg. Journ. July, 1827, from the Journal de Chimie Médicale et Journal de Pharmacie, passim.*

---

74. *Poisoning by Phosphorus.*—"On the 24th of April, 1824, a young man, twenty-eight years of age, swallowed half a grain of phosphorus mixed with very hot water. Feeling no effect, he took three days after a grain and a half in the same vehicle at a single dose. He breakfasted almost immediately after, and experienced no remarkable symptom till five, when he had no sooner swallowed some food than he complained of violent pains of the stomach and belly. These were soon followed by incessant and painful vomiting, and abundant discharges from the bowels during the night. On the following day these symptoms were aggravated by violent contractions of the belly. Emollient injections produced neither excretion nor relief. The patient, however, followed his ordinary pursuits; and it was only on the 4th of May, (after a full week,) that he communicated to M. Worbe the circumstances of his complaints. The epigastrium was then extremely painful to the touch, the abdomen was very tense, and its muscles strongly contracted; and he was unable to continue out of the horizontal posture. The features had an expression of sadness, languor, and wavering; the eyes were heavy, and the conjunctiva and skin of a strong yellow tint. The respiration, however, was natural, the pulse was only a little hard, and the tongue and mucous membrane of the mouth were unchanged *Membra generationi inservientia necquaquam affecta.* The remedies were leeches to the epigastric region, the warm bath, fomentations, and emollient cataplasms, mucilaginous injections, and for drink gum solution in abundance. The leeches were not applied till noon. At ten in the evening the patient was delirious, convulsed, and unmanageable, but carried his hands instinctively to the epigastric region. A physician summoned at seven the next morning ordered to each elbow fifteen leeches, which procured a good deal of blood. M. Flourens, introduced by M. Worbe, recommended leeches to the head; and they were accordingly applied. The condition of the patient, however, became hourly worse. The urine escaped involuntarily; the alvine discharges became frequent and copious, with flabbiness of the muscles; the beats of the heart became weak, and those at the wrist were no longer perceptible. The surface, which was now intensely yellow, became covered with a cold sweat, which was most abundant on the forehead; the extremities became cold; and death took place at three in the morning of the 6th, the second day of his application to M Worbe.

"The external appearances after death were, yellow tint of the skin, the cutaneous veins of the belly and upper part of the thigh prominent, and the skin of these parts checkered with livid spots, sugillations, and venous impressions. The scrotum was bluish and phosphorescent, according to the observation of M. Bogros. The chest contained much blackish serous fluid; the lungs were gorged with blood; the heart was soft, collapsed, and contained little blood. The muscular tissue only of the stomach was inflamed; the other membranes of the stomach and duodenum were pale and flaccid, and gas was developed in their submucous cellular tissue. The cardiac and pyloric orifices presented black or rather slate-coloured patches, which might be compared to the blood-shot spots seen on the conjunctiva. All the intestines were tympanitic, but contained little fluid. The bladder was sound, and contained four ounces of urine. Permission to examine the brain could not be obtained.

"M. Worbe and M. Bogros killed two dogs, one of seven the other of eighteen pounds weight, by giving the first half a grain, and the second a grain and a half of phosphorus dissolved in hot water. In the former dog the cardia and pylorus presented the black spots observed in the stomach of the subject above mentioned, but the brain and its appendages were sound. In the second several ecchymosed spots were found in the cellular fat, contiguous to the base of the ventricles of the heart, and the surface of the auricles. The villous membrane of the alimentary canal, especially that of the stomach, was folded or contracted, and easily detached; and the tube was abundantly filled with blackish matter, as far as the cœcum. The veins of the brain were filled with black blood; the membranes were injected and the pia mater was ecchymosed."—*Ed. Med. and Surg. Journ. July,* 1827, *from the Mém. de la Soc. Med. d'Emulation, Tom. IX.*

---

75. *Rupture of the Cœcum.*—James Burn, a strong and muscular man, wrestling with a neighbour, after a severe struggle succeeded in throwing his antagonist, who fell on his back, with his knees bent upwards, and Burn fell nearly at the same moment with his abdomen on his antagonist's knees, receiving a violent contusion, chiefly in the region of the umbilicus. According to his own account, he felt as if something had given way internally; he fainted immediately, but soon recovered, complaining of severe pain in his abdomen, with vomiting; he died forty-eight hours afterwards.

On examination, Mr. Speer observed the following appearances:—"the abdomen being opened, a quantity of the contents of the intestines was found in the cavity, and when pressure was made over the large intestines with the hand, their contents were forced through an aperture in the intestines; and on further examination, the cœcum was found ruptured. The aperture was about two inches in circumference, with uneven ragged edges, and evidently the consequence of the fall he had received; it was surrounded with marks of extensive inflammation, as were all the small intestines, on whose surface several layers of coagulable lymph had been deposited in different places, forming a false membrane of a soft texture."—*Dublin Hospital Reports, Vol. IV.*

CHEMISTRY.

76. *On the Composition of certain Black Vomitings, and their Analogy with the Black Matter of Melanosis.*—"M. Lassaigne has lately analyzed with great care the black matter vomited in a case of scirrhous ulceration of the stomach, and has found that its colour, as was conjectured by M. Breschet, is owing to blood, altered in its properties nearly in the same manner as in melanosis. The patient had long been evidently affected with scirrhous of the stomach, was seized latterly with profuse vomiting of a black fluid, and after death the whole pyloris was found scirrhous and ulcerated, with an aperture communicating with the cavity of the third curvature of the duodenum.

"The matter vomited had a chocolate brown colour, and held in suspension darker coloured flocks, which gradually fell to the bottom, leaving a reddish-brown fluid, resembling a solution of altered blood. The fluid was acid, but gave, by distillation at a low heat, a very alkaline liquid containing much ammonia. The residue was strongly acid, gave out much ammonia with potash; yielded to alcohol a solid acid possessing the properties of the caseic acid procured by Proust from old cheese,—a fluid acid which M. Lassaigne pronounces to have been the lactic, but which, according to the late corrections of Berzelius, the discoverer of that supposed acid, must have been modified acetic acid—and a little osmazome; and the residue after the action of alcohol consisted of a principle intermediate according to M. Lassaigne between mucus and albumen, but which, from the properties he mentions, appears to have been casein. The dark flocculent matter was evidently altered blood, for weak sulphuric acid acquired a reddish-brown colour when gently heated with it; the solution yielded with ammonia reddish-brown flocks, which, when dried, resembled exactly the dry colouring matter of the blood; the alkalis acted on the original flocculent matter as on blood, and when incinerated, it gave distinct indications of the presence of oxide of iron and phosphate of lime.

"The analogy between the sediment of the matter vomited in this case, and the black matter of melanosis, is therefore very great. The presence of the caseic acid has not to our knowledge been remarked in any of the natural solids or fluids, and consequently, as M. Lassaigne suggests, it appears to be a pathological formation."—*Journal de Chimie Médicale, Sept.* 1826.

77. *Chemical Analysis of the Serous Fluid of a Blister.* By M. Brandes and Birmann.—The results of this analysis are as follows:—

"Albumen, coagulable by heat, insoluble afterwards, and bearing some similarity to fibrine - - - - - - -	5.25
"Albumen soluble in water - - - - - -	0.50
"Carbonate of soda, lactate of soda, hydrochlorate of ammonia, hydrochlorate of soda, phosphate of lime, sulphate of soda, and salts of potash," combined with an animal matter, precipitated by tincture of galls -	0.26
"Water - - - - - - - - - -	93.99
	100.00

"Its composition is therefore the same with that of other serous secretions."—*Bulletin des Sc. Méd. from the Archiv. des Apotheker.*

MISCELLANEOUS.

78. *Speranza's Clinical Reports.*—Dr. Speranza, Clinical Professor in the University of Pavia, gives the result of his practice in that institution. Of one hundred and fifty-three admitted, the mortality was nine and one-nineteenth per cent.; if there be deducted those who died from accident, and in consequence of incurable chronic disorders, the proportion would be six per cent. He also details at some length his mode of treatment in fevers. In intermittents occurring in the spring, he used bleeding and general evacuants; in those of the autumn, emetics; and afterwards sulphate of quinine. He divides continued fevers into three classes: those of the sanguine system, (synocha,) of the gastro hepatic system, (bilious,) and of the nervoso cephalic, (nervous;) the first class he treated by venesection, the use of tartar emetic, digitalis, purgatives, and contra-stimulant drinks, the second class were treated by general bleeding, leeches to the hypochondrium, purgatives, and acid drinks—his treatment in the third class is not given.—*Bibl. Ital.* 1826.

79. *Baron de Ferussac's new work.*—M. De Ferussac, editor of the Bulletin des Sciences has just finished a work, presenting the complete statistics of all the journals of the civilized world, from the invention of Printing to 1826, including also the learned and literary societies of all parts of the globe.—*Foreign Quarterly Review, July,* 1827.

80. *New Editions of the old Medical Writings.*—The study of the old Medical writers has of late much increased. Besides a collection of the Greek writers, began in Leipzig, in 1821, and which has reached its 16th volume, a society in Paris has undertaken a similar enterprize, but embracing a wider range

as it not only includes the Greek and Latin authors, but also the Arabic, those classed under the denomination *Latino-barbari*, and a selection of the principal modern works which have been written in Latin; the whole to form a collection of one hundred volumes.—*Ibid.*

81. *Anatomical Cabinet of the University of Moscow.*—The rich anatomical cabinet which the deceased Emperor Alexander purchased of the Privy counsellor Professor Lodor, for ten thousand roubles, belongs now to the University of Moscow.—*Ibid.*

82. *On the changes which the laws of Mortality have undergone in Europe within the last half century, or from* 1775 *to* 1825. By M. Benoiston De Chateauneuf.—According to the calculations of several philosophers, who investigated the laws of mortality, and the probabilities of the duration of life during the last century, the following facts have been considered as sufficiently established:—

"1st. In a growing generation, the half died in the first 10 years of existence, and even sooner.

"2d. Three-fourths had perished before fifty years, and four-fifths at 60; or, in other words, of 100 individuals, 15 only arrived at this age.

"3d. From 80 to 100 years, none remained: a whole generation had run its course.

"4th. The general proportion of deaths was determined to be as 1 to 32, and that of births as 1 to 28.

"5th. It was reckoned that there was 1 marriage in 110, or 115 individuals, and that the degree of fecundity was pretty accurately represented by 4 children for each couple, although at the same time, this, as well as all the other relations, was liable to vary according to the places. In Spain and Italy, there were only 2 children from each marriage; in France and Russia 4; from 6 to 8 in Germany, and from 8 to 11 in Sweden."

Such were the laws to which the course of human life in Europe were subjected about half a century ago. Since then facts have increased and become more accurate—great political changes have taken place—civilization and the arts of industry have advanced with rapity; and it is interesting to examine what has been their influence upon human life.

"At the present period, 1825, of a certain number of children born in Europe there dies, in the first 10 years, 38.3 in 100, in place of 49.9 which formerly died.

"From birth to 50 years, 74.2 were found to be extinct. At present the proportion of dead to living, in the same period of time is not more than 66.

"Lastly, 23 persons in 100 now arrive at 60, in place of 18 who attained that age half a century ago.

"These proportions are mean terms; taken separately they become still more favourable. Thus in France the proportion of those who survive at 60 years is 24.3 in the 100, while formerly it did not exceed 14.7.

"These results, sufficiently remarkable of themselves, gave rise to others which are not less so.

"From the 40th degree of latitude to the 65th, that is to say, upon a line which extends from Lisbon to Stockholm, embracing an extent of about 1000 leagues, and in a population of 65,000,000 of individuals which is comprehended by Portugal, the kingdom of Naples, France, England, Prussia, Denmark, and Sweden, the proportion of deaths is 1 in 40.3, that of births 1 in 30.1; that of marriages 1 in 123.3; and the fecundity, 4 children by each marriage.

"On comparing these relations with those of the last century, we are struck with the difference which exists in the actual mortality of early life at these two periods, a difference which is not less than between 38 and 150.

"This difference would itself suffice to attest the happy effects of vaccination, to which they are partly owing; but it also proves a great ameliorati with respect to the cares bestowed on childhood; and those cares themselve indicate a greater prosperity and an improved condition in families. If we now reflect that it was especially in the lower classes that the mortality of childre was enormous, we may conclude, that if these classes loose fewer at the present day, it is because they are in a better state for taking care of them, an bringing them up.'

"Nor is it less evident also, that if these same causes, as well as some other had not extended their influence beyond the years of childhood, they woul only have had the melancholy advantage of delivering over to death a greate number of victims in the stages which follow. The contrary, however, take place, and at the present day more individuals attain the 50 and 60th year tha formerly. The action of these preserving causes of childhood must therefor continue to operate upon the grown up person during the remaining part of his career; and these preserving causes are an improved state of society.

"Marriages were formerly in the proportion of 1 in 110 individuals; they ar now in that of 1 to 123. This, which is a mean term, is even too high for som countries. In France, where according to the calculations of Necker, the was 1 marriage in 111 individuals, there is only reckoned 1 in 135.

"The natural consequence of the diminution of marriages is that of birth This diminution is always proportional to the increase of the population; fo while the proportion of marriages to it has fallen from 110 to 123, and that of births from 28 to 30, it is yet remarked that the one and the other are augmented in a certain degree.

"The fecundity would appear to have remained the same. In the presen century, as in the last, the numerical expression which represents it is alway four children for each marriage. But this proportion is undoubtedly not th true one, since we are obliged to include among the births that of the illegitimate children from the defect of proper distinctions in the accounts of birth especially in foreign countries. In France, the exact proportion of births to marriages is 3.9.

"The marriages as well as births have diminished in Europe within these 5 years, and yet the population is seen to increase. This apparent contradictio is explained by another fact, the very great diminution of the proportion o deaths. There was formerly 1 death in 32 individuals, there is at present 1 i 40.3. This diminution of the mortality bears chiefly upon the earlier stages of life. There are, on the one hand, more newly-born individuals that surviv and on the other more adults that grow old.

"The necessary result of this latter state of things, is the prolongation of the middle period of life, which appears in fact to extend beyond the limi within which it was formerly confined.

"From all that has been stated, it would appear that the laws of mortalit such as they were established 50 years ago, have since that period undergon the following modifications:

Mortality of the Different Ages.

From birth to the	Old State.	New State.
age of 10,	50 in 100	38.3 in 100
50,	74.4	66.0
60,	82.0	77.0
Proportion of		
deaths,	1 : 32.2	1 : 40.3
births,	1 : 27.7	1 : 30.1
marriages,	1 : 110.4	1 : 123.3
Fecundity,	4.0	4.0

"This table, without doubt, contains errors, owing to the incorrectness several of the accounts given."

The following is the state of the population of France, such as it was at the time of Necker, in 1780, and such as it is at the present day in 18[illegible] according to the Annuaire du Bureau des longitudes for the year 1826.

	Old State in 10 years. Population. 24,800,000 inhabitants.	New State in 7 years. Population. 39,400,000 inhabitants.
Deaths,	818.490	261.230
Births,	963.200	957.970
Marriages,	213.770	224.570
Natural Children,	20.480 (1-47)	65.760 (1-14)

Mortality at Different Ages.

	Old State in 10 years.	New State in 7 years.
From birth to the age of 10,	50.9 in 100	43.8 in 100
50,	74.4	67.5
60,	81.0	75.6
Proportion of		
deaths,	1 30.2	1 : [illegible]
births,	1 25.7	1 : 31.7
marriages,	1 111.3	1 : 135.3
Fecundity,	4.4	3.9

Edinburgh New Philosophical Journal, Oct. 1826."

Since the above summary of M. Benoiston de Chateauneuf's memoir was written, we have received the first number of the *Foreign Quarterly Review*, which contains a notice of a work, published last year in Paris, entitled "Discours sur les Améliorations Progressives de la Santé Publique par l'influence de la Civilization. Par F. Berard." From this review we will present some additional particulars respecting the influence of civilization on public health.

"Life and health are not absolute and stationary quantities, but variable, and their variation depends upon a number of circumstances—on proper nourishment—on clothing—on fit habitation, as protection from the elements—and on mental and personal tranquillity; all these are best acquired and best ensured by civilization, and most uncertain under barbarism, or if that phrase pleases better, under a state of nature."

"Whenever we find man near that state of nature which is so largely expatiated on, and so ardently desired, in the dreams of Rousseau and Monboddo, we invariably observe him surrounded by circumstances unfavourable to existence, and debased in mind while he is weakened in frame. If we turn to the relation of any newly discovered country, we find that the face of the land is darkened by immense tracts of forest: large masses of water stagnate on the earth, the very air is filled with noxious and pestilent vapours, ferocious and venomous animals abound, and the poor savage in his boasted state of nature, is like a straw in the whirlpool; the want of means to combat against the evils which surround him never fails to weaken the vital forces, so that longevity amid savage nations is not only rare, but savages in general are more feeble than civilized nations. Le Père Fauque, who lived much among them, says he scarcely saw an old man; Raynal asserts the same of the savages of Canada; Cook and La Perouse of those of the north-west coast of America; Mungo Park of the Negroes; and Bruce of the Abyssinians."

"Will it be said then that civilization is a cause of degeneracy; and that those means which alone provide the body with constant and suitable food and clothing—which convert marshes into pasturage, forests into fields—which purify the air and remove all that is noxious in the vegetable and animal kingdoms, while they foster all which is good for man—that the means which effect these are the very causes of disease and death, of degeneracy of frame and imbecility of mind? They who are willing to adopt this creed, must, if consistent, prefer ancient Gaul to fertile France—Britain in the times of Cæsar and Agricola to England in our own—modern Egypt to Egypt the mother of science, and abounding in wealth and fertility. It is not Egypt only which may be adduced as an illustrious example of our argument, that population, and consequently health, is increased by civilization, and that with barbarism depopulation invariably takes place; modern Greece, with its islands, Asia Minor, and Spain, are no less striking proofs. In the sixteenth century, in the time of Ferdinand and Isabella, Spain was the very model of Europe. Her soil was rich, her sons proverbially chivalrous, her language was the language of courts, commerce and the arts flourished, and her population amounted to twenty-four millions. (*Robertson's Charles Vth.*) From that period may be dated the commencement of her degeneration; she has now become the most barbarous power in Europe, with a population of ten millions at most.

"On the other hand, her neighbours have been progressively advancing in civilization, and they present therefore a progressive scale in the advance of population.

"In 1688 the population of England was	5,300,000
1792	8,678,000
1803	9,168,000
1822	12,340,000

a population considerably more than doubled in the space of 134 years."

"1700 the rate of mortality in *London*, was	1 in 35
1801 and till now	1 in 38

a benefit therefore of thirteen individuals, or one-half.

"The rate for *Great Britain* was,

From 1785 to 1789	1 in 43.6
1790 to 1794	1 in 44.7
1795 to 1799	1 in 46.5
1800 to 1804	1 in 47.4

"For *England*,

In 1780	1 in 40	In 1800	1 in 47
1790	1 in 45	1810	1 in 50

so that in the short space of thirty years the mortality for England has been diminished one-fourth; a prodigious result, which can only be accounted for by the rapid strides the country has made, and is still making, in civilization. *Berard*, p. 49, (*quoted from Heberden.*)

"In the first half of the eighteenth century the proportion of deaths to births in *London* was as 3 to 2; in the last half as 5 to 4; and since 1800 the number of deaths is less than that of births as 12 to 15.—(*Berard*, p. 49.)

"In *Sweden*, the mean mortality of twenty years, from 1775, to 1795, was 1 in 37, instead of 1 in 35, as in the twenty years preceding. During this period the births did not increase—it follows, therefore, that individual life had become longer.—(*Berard*, p. 50.)

"In *France*, in 1780, the deaths annually were 1 in 30; during the eight years from 1817 to 1824, 1 in 40, nearly one-fourth less. From the census of the population which was taken in 1817, it appears that the average annual difference between the deaths and the births for these eight years, is nearly 200,000 in favour of the latter. Nothing can be a stronger proof of the favourable change in the law of mortality which has taken place in France.

"On the whole, then, it may be said, that one of the main causes of difference in population among nations is the difference in civilization; and it is a curious confirmation of the fact, that in European nations the mortality is greatest in those classes of society which are the poorest, and which therefore approach nearest to the state of uncivilized people in barbarous countries."

Dr. Villermé, in several memoirs on the relative mortality of the wealthy and indigent classes, at Paris, has stated some interesting facts respecting the relative mortality of the twelve arrondissements of Paris. The mortality in the different arrondissements varies from 1 in 43, (the mortality in the 12th arrondissement;) to 1 in 62, (the mortality in the 2d arrondissement.) This difference in the ratio of their mortality, was attempted to be accounted for by the local influences—by their water—by the density of their population; none of these would, however, explain the circumstance. Dr. Villermé then tried if it could be accounted for by their comparative indigence, and he found that by arranging the districts in one column, in the order of their mortality, and in a second, in the order of their poverty, that the order in the two columns, with one single exception, was the same; the mortality being greatest in the poorest.

"Among barbarous nations and the poor of civilized ones, acute diseases produce the mortality. Among the better classes of civilized nations, chronic maladies abound. There is one appalling fact which we must adduce in support of our assertion, that mortality is greatest among those who suffer the greatest privations, we allude to the mortality among slaves. In America, it was observed that a very large importation of slaves speedily required renewal, so much did the deaths predominate over the births. According to Hufeland, 'Art of Prolonging Life,' p. 165, one-sixth of the negroes perished in the West Indies annually, 'a result which is only paralleled,' he adds, 'by the ravages of the most inveterate pestilence.' The births among the *free negroes* of Martinique and Guadaloupe were four in a hundred, among the *slaves* two in a hundred."

The exercise of intellect, and a due activity in the functions of the brain, tends greatly to procure sound health and quiet days. "Hufeland in the work already cited, says, there is no instance of longevity in a professed idler. The truth is, that he who is occupied on subjects requiring thought, has not leisure to be intemperate. But independent of the protection which mental occupation gives against excess of all sorts, still there is much truth in the assertion, 'qu'on meurt de bêtise.' From all consistent analogy we must infer that the most important organ of the body, the brain, must have a great influence in the vitality of the frame. If any other organ ceases to perform its function, it immediately decays, and the constitution sympathises more or less with the local injury; if a limb is not used the muscles shrink and the bone becomes soft; so that no axiom in physiology is clearer, than that the performance of the function of an organ is necessary to the health of that organ. So much for the theory of the thing. But facts show that they who have exercised their brains have usually attained to a good old age. Of one hundred and fifty-two *savans* taken at hazard, one half from the Academy of Belles Lettres, the other from that of Sciences of Paris, it was found that the sum of years lived among them was 10,511, or about sixty-nine years to each man. And M. Brunaud has shown, in his 'Hygiène des gens des lettres,' that literary men have, in all climates and times, usually been long-lived."

AMERICAN INTELLIGENCE.

Case of Hydatids of the Uterus, successfully treated by the Ergot, by W. D. MACGILL, M. D. *of Hagerstown, Maryland, communicated in a letter from* Mr. J W. ANDERSON, to Dr. DEWEES.—"I take the liberty of writing to you, to state, though not very minutely, the result of a case of hydatids of the uterus which came under the observation and treatment of my much respected preceptor, Dr. W. D. Macgill, of this place. And I the more readily communicate this case to you, as you have expressed your intention of making use of the remedy which was employed in this instance, if an opportunity presented itself. It therefore gives me much pleasure in writing this letter, which I flatter myself will not be unacceptable, as it so completely confirms, as far as one case can do, your sentiments in regard to the treatment of this disease.

"Early last spring Dr. M. was called to see Mrs. W. aged forty years, who had previously enjoyed good health, and had been the mother of several healthy children. She was labouring under a very painful affection of the womb, accompanied with periodical hæmorrhagy, occurring once in twenty-four hours, usually in the evening, accompanied with febrile symptoms, and much disturbance of the digestive functions; and which was evidently making rapid inroads upon her constitution. During its further continuance her stomach became exceedingly irritable, so much so indeed as scarcely to retain nourishment of any description. Dr. M. addressed his remedies principally to the restraining the hæmorrhagy, and obviating the excessive weakness of the stomach. But notwithstanding the symptoms continued to increase in violence, so much so as to endanger the life of the patient. She had become very much exhausted by the repeated loss of blood, and inability to take nourishment, (for she had now suffered for more than three months,) when the doctor made an examination, per vaginam, (after having made them frequently before without any satisfactory result,) and discovered something protruding through the os uteri, which he extracted, and found that the poor woman was labouring under hydatids of the womb. He immediately sent for the *ergot*, judging from analogy that it would prove decidedly effectual in producing an expulsion of the heterogeneous mass. The event proved that he was not mistaken in his conjecture, for he had given the ergot but a very few minutes when it began to show its specific operation upon the uterus, and soon ended in a complete evacuation of its contents. The mass of hydatids equalled in size the head of a large child at birth, and afforded a very good specimen of the disease, a part of which we have made a preparation of. The representation in your book on the "Diseases of women," is admirable. The floodings immediately ceased, and did not return. The woman rapidly recovered, until she has at length attained her former health and vigor, and I believe she is again pregnant. She says her mother died of a disease exactly similar.

"P. S. Dr. Macgill had not heard of your suggestion until after the delivery He was led to the employment of the ergot solely from analogy."

[The above case is highly interesting, as the remedy employed was entirely successful in this most distressing complaint. I feel much indebted to the ingenious young gentleman who has favoured me with it, and beg his acceptance of my thanks. The allusion above is to what I had suggested in my treatise on the diseases of females, when speaking of the hydatids of the uterus.*

---

* I observe, "we would propose, and we think with a fair prospect of success, the free use of the secale cornutum in this complaint, to procure the expulsion of the Hydatids; especially in such cases as would not freely admit the hand; or where the contractions of the uterus were too feeble, or insufficient for their expulsion." p. 299.

I there proposed the use of the "ergot;" the remedy which proved so successful in the hands of Dr. Macgill in the case just related. It is true, this is but a single case; and may not be thought sufficient to establish the general usefulness of the remedy in the disease in question; this is granted; but there must be a first case for the trial of every new remedy; and in a disease like that of uterine hydatids, it holds out a strong inducement to repeat the "ergot;" especially as the disease but rarely occurs, and hitherto has been without remedy, though spontaneous cures may have taken place.

W. P. D.]

Note of a Case of Fustula in the Lumbar Region, communicating with the Bladder. By L. Proudfoot, M. D.—E. D. aged twenty-four, applied to me on the 16th of March, 1827, on account of a fistulous opening which he had in the left lumbar region; upon examination with an elastic bougie, I found it entered about three inches straight forward, then taking a direction upwards, to the extent of eight inches, being within the parietes of the abdomen.

Mr. D. dates the commencement of the disease from a violent wrench which he received at sea, while handing a topsail. This was immediately followed by a discharge of bloody urine and great prostration of strength, for several days.

I commenced the treatment, by introducing a seton opposite the opening, and injecting a solution of sulphas cupri of three grains to the ounce of water. internally; I prescribed the murias hyd. eight grains, dissolved in eight ounces of brandy: under this treatment his general health was much improved, and decidedly beneficial effects resulted from the injection, which was repeated every third day, the only uneasy sensation he felt, was a slight pain in the left groin. About a fortnight after his application to me, he passed a considerable part of the injection from his bladder, which was followed by a discharge of wind from the urethra—this continued for several days, with a small discharge of urine from the opening in his back, particularly after getting up in the morning—he omitted taking the murias hyd. and I gave him the bals. copaiba in the dose of a teaspoonful three times a day. Different injections were now employed—the black, yellow, and white wash were used, without any sensible difference in the depth of the opening.

The novelty of the case induced me to show it to my former preceptor and much esteemed friend, Dr. Mott, who strenuously recommended the use of the oleum terebinth.

About the beginning of October, I injected nearly two fluid drachms of the oleum terebinth. which soon after was voided by the bladder, with some discharge of flatus; since that time a great alteration has taken place, the depth of the fistula is at present about three inches, and the prospect of a recovery is now very flattering—the seton wore through the integuments in about three months, and the discharge from the opening has throughout the whole course of the disease appeared perfectly healthy.

The injection was thrown to the top of the fistula by means of an elastic bottle, and a small catheter.

Notice of a Case of Irritation of the Tarsi, caused by Pediculus Pubis. By J. D. Godman, M. D.—A short time since I was politely invited by my friend Dr. Vanderburgh, of New York, to see the following singular case, which he has permitted me to make use of in this way. A child of four or five years of age, belonging to a very respectable family, was observed to be suffering under apparent inflammation of the edges of the eyelids, though in every other respect healthy. The redness seemed remarkably superficial, yet was attended by a very peculiar degree of irritation. The edges of the tarsi appeared as if covered with fine red sand; and on examining the eyelids attentively with a magnifying glass, these grains were perceived to be in motion, and actually proved to be crab-lice, (pediculus pubis.) The roots of the eye lashes were literally loaded with them: the irritation was of course readily explained, and as easily removed by the use of some mercurial ointment. What rendered this circumstance more singular, was that on the most careful examination of the eyebrows and other parts of the head, no traces of these parasites could be found. From the respectability of the family, and the attention bestowed upon the cleanliness and comfort of the children, no such source of irritation to the eyes of the children could have been suspected. Both eyes were in the same condition, and examined at the ordinary distance with the naked eye, looked as if affected with an inflammation of the tarsi.

Case of voluntary Dislocation of the Os Humeri. By **George F. Lehman, M. D.**—On the 8th of August, 1821, I was requested to visit a sailor on board the brig Commodore Perry, Captain Barclay, who had luxated his shoulder.

Upon inquiry, I ascertained that it happened while he was engaged lifting the side of a bag of coffee, weighing perhaps one hundred and twenty pounds.

The luxation was downwards and inwards. I closed my left hand, and placing it in the axilla of the side affected, took hold of the humerus above the elbow, and pressing it to his body, to my surprise the luxation was reduced.

Captain Barclay observed that he was an indolent fellow, and could dislocate his arm whenever he pleased; which he had done several times on the voyage, particularly in port, to escape work. This observation attracted my attention, and I asked the man if he could put his shoulder out of place at will. He answered in the negative; but said very slight causes had that effect, especially when he bent his body far over to raise any thing. I desired him to demonstrate what he meant. A bag of coffee, weighing one hundred pounds, was placed before him. He bent his body over it, and by elevating one-half about twelve inches from the deck, the shoulder was again dislocated. He could, also, by pulling horizontally, remove the head of the bone from its socket.

I reduced it again with the greatest ease, but required a small pad in the axilla, and moderate extension to accomplish it. I could not succeed as in the first instance. No pain whatever was created either by the luxation or reduction of the bone, and none existed during the displacement.

This person certainly had the power to luxate his os humeri at discretion, without pain or uneasiness, and no doubt he was in the habit of doing so to elude laborious employment. Twice it had been disjointed on the same voyage in the West Indies. Physicians were called to replace it, who as a matter of prudence, directed the arm to be kept in a sling, and at rest for a few days, and thus he escaped labour. Immediately after I reduced it, he went to work as if nothing had occurred.

*Brazilian Medical Journal.**—The appearance of a medical journal in the Brazilian empire may be regarded as a happy omen, and if it be conducted upon the same liberal principles with which it has commenced, it cannot fail to be of great benefit to the medical profession of Brazil. The three first numbers, (for January, February, and March, 1827,) the only ones we have received, are filled with extracts from the journals of France and England, and with notices of recent works and improvements in medicine and surgery. The original department is at present necessarily limited, but at no distant period we may hope that the physicians of that part of the American continent will contribute their proportion to the advancement of medical science, for which they have an ample field in the investigation of the medicinal productions, and the peculiar diseases of their climate. We wish Dr. Sigaud the fullest success in his spirited and laudable exertions to diffuse professional knowledge. J. D. G.

---

* O Propagador das Sciencias medicas, ou annaes de medicina, chirurgia e Pharmacia; Para O Imperio do Brazil e nações estrangeiras, seguidos de hum Boletim especialmente consagrado as Sciencias Naturaes, Zoologia, Botanica, etc. etc. Por J. F. Sigaud, Doutor em Medicina. Rio de Janeiro, 1827.

Epidemic Yellow Fever of Washington, Mississippi.—Dr. **John W. Monett** has published in our esteemed cotemporary, *the Western Medical and Physical Journal*, an interesting account of the epidemic yellow fever which occurred in Washington, Mississippi, in the autumn of 1825. We extract the following details.

"Washington is an inland town, six miles east of Natchez, containing about two hundred and fifty inhabitants proper, previously to the present epidemic, of whom nearly one-half were blacks. It is situated upon an elevated site, naturally well supplied with drains. the soil is alluvial, and like all the surrounding country, is very uneven, or rather abruptly undulating, so that no marshes are to be found nearer than the Mississippi, which is six miles distant. The town covers a large extent of ground, for the number of its inhabitants, the buildings being thinly scattered, principally on one street, which is near a mile in length. There are to be found in it none of those sources and collections of filth, which are so frequently met with in cities and large commercial towns; but the general appearance is that of a pleasant and cleanly country village.

"This place has generally been noted for the excellent health enjoyed by its inhabitants; and it has been a principal resort for safety to the citizens of Natchez, when that city has been visited by yellow fever. No case of yellow fever, so far as I have been able to learn, ever originated in Washington, previous to the autumn of 1825; not even in 1823, when Natchez was so severely visited by that disease, and when Washington was crowded with those who had fled for safety, with great quantities of merchandize. During the summer and autumn of 1825, it continued quite healthy for the season of the year, until after it had been crowded with people and goods of every description from Natchez, where yellow fever had made its appearance The surrounding country, likewise, was unusually healthy previous to the epidemic, and remained so during the fall, notwithstanding the great mortality that prevailed in Washington and Natchez. No peculiarity of disease was observed during the summer, excepting a few cases of typhus gravior, and congestive bilious fever, which occurred in August, and the early part of September. Some cases of the same character occurred, likewise, in July, yet they were by no means more frequent than in former years.

"The spring and summer until the last of July, were agreeably diversified by showers of rain and clear weather; although the quantity of rain, which fell during that time, was less than usual, the heat was considerable, ranging, generally, between 80° and 90° of Fahrenheit. The following is the medium temperature of the atmosphere in the shade, from July 10th, to September 25th, viz.

From 10th, to 31st of	July.—Medium	temperature	at	5	o'clock,	A. M.	76½°
Do.	do.	do.	do.	4	do.	P. M.	91°
From 1st, to 31st of	August.—Medium	temperature	at	5	do.	A. M.	78°
Do.	do.	do.	do.	4	do.	P. M.	90°
From 1st, to 25th of Sept.		do.	do.	5	do.	A. M.	72½°
Do.	do.	do.	do.	4	do.	P. M.	85½°

Five o'clock, A. M. and four o'clock P. M. being the extreme.

"During the months of August and September, the heat, although not so extreme, as in July, was oppressive, and almost without remission; and the drought was equally great, not more than two or three light showers of rain having fallen during that time. Nor, indeed, was there any material change in the weather until the 15th of October, when it became cooler, and the atmosphere appeared more humid; which state of the weather was succeeded by rains and hard frosts, about the last of October and first of November. Previous to this change, all moisture seemed to be dissipated: the dews, which here are generally heavy, ceased almost entirely, and the comparative warmth of the nights, with the small portion of moisture, which descended, was insufficient to restore the drooping vegetation from the effects of excessive heat.

"About the last of August, cases of yellow fever were reported in Natchez; and the Board of Health advised the citizens to leave the place. The consequence was, that in two or three days a great proportion of them fled, many were dispersed in the surrounding country; the merchants, principally, crowded into Washington, bringing with them all kinds of goods and groceries Houses which before had been considered unfit for residence, and as such were abandoned, were now filled with tenants. About this time several persons died of yellow fever in Washington, who either left Natchez after they were taken sick, or whose disease could be distinctly traced to that place.

"Ten or twelve days after the flight from Natchez, the first cases occurred which originated in Washington. The first case was that of Mr. L.'s child, which died on the sixth day after its sickness. On the next day Mrs. C. was taken sick, and died on the eighth day of her disease. On the same day three others were taken with yellow fever, of whom two died; one on the fifth and the other on the sixth day of their disease. Of these three M. and L. lived together in a house entirely isolated, and two hundred yards distant from the main street, on an elevated and clean situation. They were carpenters by trade, and during the week previous to their sickness, had been shelving rooms for the merchants from Natchez, and likewise assisting them in opening and putting up their goods: to this source they attributed their sickness. M. died on the fifth day; L. recovered. The other case, Miss P. was attributed to the admission into their house, (which consisted of but one room,) a family from Natchez, with their household furniture. Cases now began to occur, indiscriminately in every part of town, with much malignancy; insomuch that a majority of the inhabitants, together with those who had fled from Natchez, speedily left town, and retired to the surrounding country.

"At the commencement of the epidemic, negroes were supposed exempt from its influence, and indeed none of them were attacked during the first few days. After which, those of them who were exposed to its influence were occasionally attacked: but in them it was generally mild, seldom requiring blood-letting. The whole number of them attacked was fifteen, of whom three died: while the whole number of whites attacked was about one hundred, of whom forty-nine died.

"Several of those who left town on the first alarm, to avoid the disease, were afterwards attacked with it, and died in the country; some were taken as late as the ninth day after having left town, and died: I know of none attacked at a later period after exposure. Those who were removed to the country were attacked, and those who were attacked after they left town, appeared to fare no better than those who remained.

"The wind, rain, and frost, which occurred between the 15th and 28th of October, gave a check to the disease; and for several days during that time, and later, no new cases occurred. The people believing that the infection was destroyed by the cold, returned to their homes, having previously caused their houses to be well ventilated and cleansed. From October 28th until the 5th of November, the weather, during the day, was quite warm; insomuch, that people began to be apprehensive as to their safety, and not without cause: for, between the 7th and 10th of November, nine new cases occurred in those who had returned, and who had not used sufficient precaution in re-occupying their houses; of which cases five terminated fatally. Of the above nine cases, four occurred in one house; where, in the early part of the epidemic, several persons had laboured under the disease, of whom some died. In cleansing this house, the servants had neglected to wash and sun the bedding, which were incautiously used by those who returned. About the time these cases occurred, the weather set in wet and cold, and health was restored to the place, no case having appeared afterwards.

"So general had been the morbific influence in the town, that scarcely any who remained, entirely escaped: and so fatal was the disease, that one-half of those attacked, fell victims to its violence. Of the before-mentioned numbe of deaths, thirty-five were inhabitants of Washington; the remainder were persons from Natchez, and the surrounding country. Hence it will be perceived that upwards of one-fourth of the whole white population of the place were swept off—a mortality unequalled!

"As to the *origin* of this fever in Washington, two different opinions are entertained and supported by their respective advocates. One is, that it originated in Natchez, and was transported to Washington, in the state of fomites in blankets, and various other articles of merchandize. The other is, that it originated in Washington, independently of Natchez.

"That yellow fever may be infectious is believed and supported by many able authorities, which shall not now be adduced; many of whom, have been long intimately conversant with it in different climates. That it may be propagated by means of *fomites*, contained in blankets and other articles, I am convinced, not only from authorities, but likewise from personal observation. And during the late epidemic, several cases fell under my observation, which to me incontestibly prove the fact: cases where the disease was produced in the country, without any exposure to town, from the blankets and bedding, used by persons who died of that disease after being removed from town. At a gentleman's two miles from Washington, two of his relations, after being removed thither, died of yellow fever. The bedding on which they had laid, by accident, were thrown together in an upper room, where they remained several days. In this place they were found by three small girls, who, for two or three days, unknown to their parents, were in the habit of going into this room to play upon the bedding. In a short time all three of those children were attacked with well marked cases of yellow fever; notwithstanding, the situation is and has been noted for its salubrity, and they had no opportunity of contracting the disease elsewhere. These were the only persons in that family who contracted the disease."

Vicarious Urinary Discharge.—In our original department will be found a most extraordinary instance of this kind—the only case which bears much resemblance to it that we recollect having seen an account of, is the one related by Dr. Senter, in the first volume of the transactions of the College of Physicians of Philadelphia. As that work has had but a small circulation, the following condensed account of the case will no doubt be interesting.

Lucy Foster, a servant maid, æt. fifteen, fleshy and healthy looking, commenced to menstruate at the age of thirteen; and continued regular until about the latter end of May, 1785, at which period the menses not appearing, and being exposed and negligent of her health, her mother supposed she had taken cold. On the 1st of June she was attacked with pain in her left hypochondrium, with cough, fever, oppression at her breast, with dyspnœa, and great irritability of the stomach. About the middle of July she vomited a quantity of bloody pus. She had a suppression of urine for twenty-four hours, which was relieved spontaneously.

In about two months she had recovered so far as to be able to return to her usual occupation, her menses returned, and continued well until June, 1786, when her old complaints, with the exception of the suppression of the menses returned with greater severity than before. The irritability of her stomach was so great that she rejected almost every article of nourishment or medicine that was given her. Opium afforded the most permanent relief.

"On the second of July she was seized with a total suppression of urine, without any perceptible cause, which continued five days."

The beginning of the sixth day she was taken with a vomiting, and she brought up water, which she said tasted in every respect like urine. "As her vomiting continued, she found relief in the bottom of her belly from the swelling and great soreness she had felt for several days.

"She now thought herself much better, but her vomiting recurred the next day, and continued more or less every day till the 14th of the month."

As she had discharged from her stomach every thing she ate or drank, from the time of her first vomiting, she did not suffer so much from the Ischury, as she did before the first evacuation. Dr. Senter prevailed upon her to let him pass the catheter into the bladder, whence he drew about three pints of urine, clear, but high-coloured; her strength was very much exhausted, and she felt great heat and soreness throughout the abdominal viscera.

For ten weeks successively, she was incapable of retaining in her stomach any thing except opium.

From this time to December, she continued with very little abatement of her distress. And as she could lie in no other position, she was constantly supported in an armed chair, in a reclined posture, with pillows under her hips.

"Whenever I omitted to draw off her water once in thirty or thirty-six hours at farthest, she never failed to vomit it up. To ascertain so extraordinary a fact beyond the possibility of a mistake on my part, or a deception on hers, I often visited her about the time I knew she must vomit if the catheter was not introduced; and I examined her bladder, found it full, hard, and tender; and sat by her till the vomiting recurred, saved the water that she brought up this way, and compared it with that I drew off, and found it the same in every respect.

"In the month of January, 1787, from some cause unknown she could not be relieved with the instrument, nor could she vomit up her urine for several days; when it passed off by the *navel*, for three days successively, after which, the catheter was used with the same effect as before.

"About the beginning of August, a *brick-coloured gravel* began to pass off through the catheter, and soon became so large and plentiful that neither urine nor gravel could be completely evacuated by the instrument in its usual form

"She continued to discharge gravel this way, whenever her urine was drawn off, till the beginning of November, at which time she felt more distress than usual, whenever her urine came off by vomiting, and she soon observed a *gritty substance* in her mouth. When I was informed of this new phenomenon, I requested her to save the urine for my inspection, the next time she vomited. I compared this with what I drew off, and found it contained the same kind of *gravel* as that which passed the catheter.

"From this period to the summer 1788, her complaints continued much the same. When her water was not drawn off she always brought it up by vomiting; commonly attended with great pain in the head. The *hypogastrium* now became more tumid and tender, and her bladder appeared very much thickened and extremely sore, even after it was evacuated. Add to this, the apparent inequality of the surface of the bladder, was so great, and the tumour shifting sometimes towards the right, and at others to the left inguen, according as her body was moved, that I began strongly to suspect a stone.

"Through the month of September, her urine could very rarely be drawn off; for upon the introduction of the catheter, a spasm seized the urethra and neck of the bladder, and though the instrument appeared to pass high up into the fundus of the bladder, not more than a gill could be drawn, before it stopped entirely, with a sensation of something falling down against its cervix, which she was very confident was a *stone*.

"In the course of this month she vomited more sand than she had at any time before, and failed in strength and spirits so fast, that I was apprehensive she would not live the month out. Her urethra, bladder, and external genital parts were so extremely sore, that for some time, it prevented my searching her for the stone in the manner I intended.

"About the beginning of October, I was able to introduce the sound, when I readily met with a stone, which appeared of a small size, and rather softer than urinary calculi commonly are. I repeated the examination a number of times, till I was perfectly satisfied that this was the case.

"During the remainder of the fall, and principal part of the winter ensuing, the same troublesome sensation of the falling down of a stone in the bladder, upon the use of the catheter, continued, and induced the most excruciating pain and misery imaginable.

"Her bowels, for the most part, were much less constipated than could have been expected, considering the frequency of vomiting, her supine situation, and the little nourishment she was able to retain upon her stomach: and during the whole of her disease, till within three months of her death, the catamenia were irregular. Sometimes they appeared every fortnight, and at others, she passed the regular period for that evacuation two or three months, without having any; but it did not appear to me that her disease was much influenced by either.

"Early in the spring, 1789, her urine began to pass *per anum*, loaded with the same kind of gravel that had come away by the catheter. This gave her some respite with respect to her vomiting, though she continued to throw up more or less urine as well as gravel that way every week.

"This new course of her water gave her a very troublesome *tenesmus;* but the stone in the bladder, as well as the pain and disagreeableness arising from the sensation of its descent, became daily less fatiguing. Her strength and spirits decayed fast, and the fever that she had before continually laboured under, grew more completely hectical.

"After the 13th of May, her bladder never became so much distended with urine as it had been before; and both this and the gravel, now generally passed her once in twenty-four hours, either by vomiting or purging. She, however, introduced the catheter herself, and sometimes drew off her urine to the quantity of a gill.

"The secretion of urine, as well as the formation of calculi, evidently diminished, in proportion to her loss of strength, and the increase of the diarrhœa. The menses entirely ceased.

"During the latter part of spring and summer, she became quite paralytic at times; the frequency of vomiting increased, and she had several convulsion fits after vomiting. She grew more and more emaciated; her convulsions returned more frequently; her fever was more putrid; she at last became lethargic, and on the 11th of August, death, which she had long and ardently wished for, put a period to a series of the most complicated and singular misery that I have ever seen since my acquaintance with disease."

The day after death Dr. Senter examined the body in the presence of Drs Waterhouse and Mason.

"*Thorax.*—In this cavity there was nothing appeared unnatural, except a considerable adhesion of the right lobe of the lungs to the pleura. *Abdomen.*—The omentum was principally wasted, but not more than is commonly the case with those who die tabid. It was, however, of a dark gangrenous colour pretty generally. *Stomach.*—This appeared very much changed from its natural colour, and in a gangrenous state, containing a semi-purulent matter of a fœtid scent. *Liver and Gall bladder.*—There were no preternatural adhesions of the former, nor gall-stones in the latter; and their colour, &c. not unusual. *Intestines.*—In these there were no ruptures either of their muscular coats, blood-vessels, or lymphatics, that we could discover. The villous coat was much destroyed, and the colour of the intestines darker than is common, except the *duodenum*, which was very much discoloured with the bile. *Kidneys and Ureters.*—In these there was no considerable deviation from a state of soundness; they were lax or flabby, but no rupture of any of their vessels, or any calculi discoverable. *Urinary Bladder.*—This was in its natural situation, not the least thickened, had no sand or gravel in it, nor did it adhere preternaturally to any of the circumjacent parts; and the muscular sphincter of its neck yielded readily to the introduction of the finger from the bladder into the urethra. *Uterus.*—In its cavity was contained about a drachm of thick, darkish, fœtid pus; but no other appearance of disease in its body. *Tubæ Fallopianæ.*—Were larger than common in virgins, and strung with several *hydatids* or *vesiculæ*, the size of a walnut, filled with a watery glutinous humour. *Corpora Fimbriata.*—Had a gangrenous appearance. *Ovaria.*—Were enlarged to the size of a small hen's egg, and contained a considerable quantity of a clear limpid fluid immediately under the first coat."

Secret Remedies.—We have read with great satisfaction the "Reports of the Medical Society of the City of New York, on Nostrums or Secret Remedies." The first article noticed is CHAMBERS' *remedy for intemperance.*—Drs. HAMERSLEY, DRAKE, MANLY, WATTS, IVES, and JOHNSON, the highly respectable committee to whom this subject was referred, inform us that they employed Dr. G. Chilton, an able and experienced chemist to analyze the medicine, and that the results of his experiments show it to be composed of tartar emetic, capsicum, sulphur, carbon, cochineal, and gum. "If any doubt," say the committee, "could rest upon this result to which the analysis leads, it could not fail to be removed by the collateral evidences which may be brought in confirmation from its exhibition both internally and externally—its effects upon the stomach and bowels are precisely those which ought to be expected from tartar emetic, and externally applied it will produce the pustular eruption which is peculiar to this metallic salt." This medicine then owes any efficacy it may possess to the tartar emetic which it contains—of its value, therefore, as a remedy for intemperance, or of the danger of fatal consequences resulting in some cases from its exhibition, we need not here speak—every professional man will know how to estimate it.

The second report is on LEROY's *Médecin Curative;* as this remedy, however, is rarely used in this country, we shall merely remark, that the researches of the committee show that it is composed of articles which produce the most drastic purgative, and also powerful emetic effects.

The third report is drawn up by Drs. Pascalis, Hamersley, Drake, Manly, and Watts, and is on SWAIM's *Panacea*, and the other *depurative syrups*—the *Columbian Syrup*, PARKER's *Vegetable Panacea*, POTTER's *Catholicon*, SHINN's *Panacea*, SCOTT's *Panacea*, WILSON's *Panacea*, &c. all of them essentially the same. This report displays great ability and research, and is the most interesting of the three, from the extent of the evil which was the subject of investigation. It appears, (vide Report, page 34,) that about the year 1811, Dr. Berger, the elder, was joined in consultation with several physicians of New York, in the case of a gentleman labouring under a loathsome complication of disease, the sequelæ of *syphilis*, and the repeated and irregular use of mercury, which had resisted all the ordinary modes of treatment, and at his, (Dr. Berger's) suggestion, the rob of Laffecteur was given, and with good effects. "The remarkable recovery of this gentleman, and the difficulty of obtaining an adequate supply of the rob for extensive use, owing to the restrictions that at that time existed on our commercial intercourse with Europe, led Dr. McNeven, who was one of the physicians in the consultation, to give publicity to its composition and its worth. He accordingly published in the third volume of the Medical and Philosophical Journal and Review, the recipe of M. Allion, a French chymist, for its preparation. The remedy prepared according to this recipe, with the exception of substituting the bark of sassafras, or the shavings of guaiacum for the marsh reed-grass, was soon after employed by several of our city practitioners, with the usual happy results. Among many patients, Mr. SWAIM, then a book-binder living in this city, experienced its beneficial effects *in his own person*, and soon after succeeded in obtaining from Dr. N. J. Quackinboss, the practitioner who had administered it to him, the recipe for its formation, and the directions for its employment: whereupon he removed to Philadelphia, and set forth his vegetable syrup, which he denominates Swaim's Panacea, for the treatment of those diseases for which the rob has been so long celebrated. In the first instance, Mr. Swaim's directions for using his panacea, for preparing the sarsaparilla ptisan, and the quantity and times of taking it, in conjunction with the syrup, were the same, nearly verbatim, as those given by Dr. McNeven, in the publication above referred to, for the use of the rob; but of late he has altered his directions considerably, and has ceased to insist on the conjoined use of the sarsaparilla ptisan, even in small quantities. The flavour of the sassafras in the syrup first prepared by Swaim was very perceptible, but it is now the opinion of many, that he has substituted the leaves of the Pipsissewa, (Chimaphila corymbosa of Pursh,) fo the marsh reed-grass, sassafras or guaiacum, which we think very probable. However this may be, the Syrup also contains the oil of winter-green, (ol: gaultheriæ;) for its flavour is evident both to the smell and taste. Swaim's object in this addition, is, doubtless to disguise the other materials, and to render the medicine agreeable to the taste, but it may also be a useful addition as a stimulant and carminative, obviating that loathing and disgust of the medicine, which sometimes occurs from its long-continued use."*

That the sarsaparilla in the form of a syrup or decoction, alone, and when combined with corrosive sublimate, is a very valuable remedy in several forms of disease, is known to every medical man; it has been long in familiar use by the profession—but that the last combination unless administered with discrimination and judgment, is often productive of the most fatal consequenees, is equally well known, and that this must be the case must be evident to every one who is acquainted with the highly poisonous properties of the chloride of mercury.

The committee appointed by the Philadelphia Medical Society to inquire into the remedial value of the more prominent specifics now sold in Philadelphia, have been pursuing the objects of their appointment with zeal and success, and have, we are informed, collected a mass of evidence respecting the effects of Swaim's panacea,† which they will shortly lay before the public; they received documents from Drs. Chapman, Horner, Emlen, Randolph, Griffith, the Philadelphia Alms-house, &c. &c. tending to prove its inefficacy in some cases, and its injurious and even fatal effects in others.

—

Sulphuric Acid as a Cure for Intemperance.—M. Bruhl Cramer, a German physician, asserts that sulphuric acid, taken with bitters, completely eradicates the disposition to the intemperate use of ardent spirits. Dr. W. D. Brinkle has related, in our cotemporary the *North American Medical and Surgical Journal*, several cases in which he has administered this acid, and which tend to confirm in a great measure the assertion of Dr. Cramer. Dr. Brinklé adds from one to two drachms of the acid to a pint of the favourite liquor of the patient, and orders a wine-glassful to be taken every one, two, or three hours—the interval between the doses being regulated by the quantity of liquor the patient has previously been in the habit of drinking—it is not to be taken to the extent of producing intoxication.

—

Delirium Tremens.—Dr. Coates has published in the *North American Medical and Surgical Journal* for July and October last, an elaborate paper on this disease—he concludes his paper with the following summary of his views.

"1. The disease is a delirium and not a mania, and this distinction should be attended to, both for medical and legal reasons.

2. It consists in a heightened activity of the sensorium; and this appears to arise from the generation, in that organ, of an unusual vital power, which is not, as is common, exhausted by the narcotic poisons habitually used. This is not considered as an hypothesis, but the expression of a fact existing in nature.

3. The delirium may be combined with other diseases and injuries, situated in many different parts of the body.

---

* Swaim, however, at least in many instances, adds the corrosive sublimate to his preparation. This is proved by the fact that profuse salivation frequently follows its use.

† Swaim continues to announce in the pamphlets accompanying his medicine, that it is employed in the Pennsylvania Hospital and Philadelphia Alms-house. This statement is incorrect. When Dr. Price, who subsequently became an agent of Swain in England, and who failed to introduce it into vogue there, was one of the attending physicians, he was accustomed to prescribe it very repeatedly; but it has not been used in that institution since Dr. Price left it.

In the Philadelphia Alms-house its use has been discontinued for several years. Dr. S. Jackson, when elected one of the physicians of that institution, introduced the syrup de Cuisinier, the compound syrup of sarsaparilla of the American Pharmacopœia, as a substitute for the panacea, and it has been continued to the present time. In the practice of the Alms-house the syrup de Cuisinier has generally proved more successful than Swaim's "Panacea," as an appropriate treatment to each particular case is usually conjoined with its exhibition. The cost to the Alms-house of the syrup de Cuisinier, is about thirty cents per bottle, instead of five dollars, the sum originally paid to Swaim, and afterwards of three, the price at which he now vends it. S. J.

4. When violent, it obscures and renders imperceptible most of the symptoms of the co-existing disease.

5. It is doubtless necessarily accompanied, as all vital excitements are, with an unusual amount of the circulation of the blood in the organ affected; and is from this cause sensibly influenced by cups, blisters, and emetics. It is not so far checked by the use of emetics as to render these advisable as a leading means of cure. It is not sufficiently under the control of the general circulation to be cured by venesection; or to be sensibly relieved by it, without such an exhaustion as is highly dangerous to life.

6. It is entirely and absolutely under the control of opium; although the fevers, and other diseases which are liable to accompany it may be by no means so.

7. It admits of very large doses of opium, which are not productive, either at the time or subsequently, of any injurious consequences, provided they are not repeated after a tendency to sleep is evinced.

8. The patient must *sleep or die*. There is no alternative. Yet the physician should personally watch the effect of very large doses of opium.

9. There is no distinction of stages which need occasion a moment's delay in resorting to opium.

10. Purgatives are of no use in this delirium; but it is necessary to prevent costiveness subsequently to the administration of opium. Purgatives may be necessary for diseases which exist at the same time; but when this is the case, they are, in general, most advantageously postponed till after sleep has been obtained.

11. Gentle stimulants are frequently useful during the convalescence; but these should not resemble ardent spirits; and an excellent and sufficient one is capsicum. Nor should any ardent spirits, unless indicated by peculiar circumstance, be given during the paroxysm."

Appointment of Assistant Lecturer on the Institutes and Practice of Physic, and Clinical Medicine in the University of Pennsylvania.—Dr. SAMUEL JACKSON has been appointed assistant lecturer on the Institutes and practice of physic and clinical medicine in this university. The object of the appointment, we understand, is to allow Professor CHAPMAN to give an undivided attention to the practice of physic—leaving the institutes to be taught by his colleague. An arrangement of this nature has long been demanded, and while the scheme of medical education is thus enlarged and perfected, it involves no additional expense to the student—since Dr. Chapman, by whom the appointment has for several years been earnestly solicited, voluntarily appropriates a portion of the proceeds of his chair as a compensation to his assistant.

No selection, we believe, could be more judicous than that of Dr. Jackson, for the reputation of the school, or the general interests of medical science He will bring to the enterprize in which he is to enter, the genius, learning, and enthusiasm by which he is eminently distinguished, and applied, as they will be, to an important department of medicine, heretofore too much neglected, cannot fail, we think, to render the most valuable services.

The Institutes and Practice of Surgery, being the Outlines of a Course of Lectures, by WILLIAM GIBSON, M. D., &c. A new edition of this work, with numerous additions, is preparing for publication—it will be ready early in November

New Dispensatory.—Messrs. Towar and Hogan have just published an "Eclectic and General Dispensatory: Comprehending a system of Pharmacy Materia Medica, the Formulæ of the London, Edinburgh, and Dublin Pharmacopœias, prescriptions of many eminent physicians, and receipts for the most common empirical medicines: collated from the best authorities, by an American Physician." This work appears to contain in a condensed form, a very large amount of information relative to Pharmacy and the articles of the Materia Medica.

CONTENTS.

ORIGINAL COMMUNICATIONS.

ESSAYS.

ART. PAGE

I. On the Secale Cornutum, or Ergot. By W. P. Dewees, M. D. Adjunct Professor of Midwifery in the University of Pennsylvania. - - 251

II. Case of Obstinate Cough, occasioned by elongation of the Uvula, in which a portion of that organ was cut off, with a description of the instrument employed for that purpose, and also for excision of scirrhous tonsils. By Philip Syng Physick, M. D. Professor of Anatomy in the University of Pennsylvania. [With a plate.] - - - - - 262

III. Observations on some points of Pathology. By William E. Horner, M. D. Adjunct Professor of Anatomy in the University of Pennsylvania. 265

IV. Clinical Reports of Cases treated in the Infirmary of the Alms-House of the City and County of Philadelphia. By Samuel Jackson, M. D. one of the attending physicians. - - - - - - - - - 267

V. Successful Case of Ligature of the Internal Iliac Artery, for the cure of Gluteal Aneurism. By S. Pomeroy White, Surgeon, Hudson, N. Y. 304

VI. On Superfœtation and Bipartite Uteri. By James M. Pendleton, M. D. Lecturer on Midwifery, and Diseases of Women and Children, in the New York Medical Institute. - - - - - - - - - - 306

VII. Remarks on the various modes usually adopted for the removal of the Tonsils. By Alexander E. Hosack, M. D. of New York. - - 311

VIII. Case of Mr. Adrian A. Kissam, Student of Medicine, who perished in a few days after receiving a slight wound in dissecting. Reported by John D. Godman, M. D. Professor of Anatomy and Physiology in Rutgers Medical College, N. Y. - - - - - - - - - - 315

IX. On the Safety and Advantages of Mercurial Inhalations. By Samuel Jackson, M. D. of Northumberland, Pa. - - - - - - 319

X. Case of Gun-shot Wound of the Leg, in which five-sixths of the structure at the seat of injury was destroyed, successfully treated, the limb being preserved. Reported by James A. Washington, M. D. House-Surgeon of the Pennsylvania Hospital. - - - - - - 332

XI. Observations on the inefficiency of the cathartic powers of Rhubarbarine, with some Remarks on the different varieties of Rhubarb. By George W. Carpenter, of Philadelphia. - - - - - 337

XII. Cases showing the Efficacy of the Volatile Alkali in the Bites of Venomous Snakes. By I. Moore, M. D. of Scrogy, Miss. - - - 341

XIII. On the uses of the Lymph. By James Moultrie, Jr. M. D. of Charleston, S. C. - - - - - - - - - - - - - 344

XIV. Case of Poisoning by Cantharides. By A. W. Ives, M. D. of New York. - - - - - - - - - - - - 368

REVIEWS.

XV. De la Non-existence du Virus Vénérien, prouvée par le raisonnement, l'observation et l'expérience; avec un Traité Théorique et Pratique des maux Vénériens, rédigé d'après les principes de la Nouvelle Doctrine Médicale. Par L. F. R. A. Richond Des Brus, Du Puy, (Haute-Loire,) Docteur en Médecine de la Faculté de Paris, Ex-Chirurgien aide-major a l'Hospital Militaire de Strasbourg, Associé Correspondant de la Société Royale de Médecine de Bourdeaux, de celles de Toulouse, Metz, Strasbourg, et Correspondant de la Société des Sciences, Arts et Agriculture d'Agen. A Paris, 1826. Vols. II. 8vo. pp. 883. - - 37

XVI. An Essay on the Ultimate Principles of Chemistry, Natural Philosophy, and Physiology, deduced from the Distribution of Matter into two Classes or Kinds, and from other sources. By Lardner Vanuxem.—Part I. Octavo, 91 pp.—Philadelphia, 1827.—Carey, Lea and Carey. - 39

BIBLIOGRAPHICAL NOTICES.

1. Reports of Medical Cases, selected with a view of illustrating the symptoms and cure of Diseases, by a reference to Morbid Anatomy. By Richard Bright, M. D., F. R. S. &c. Lecturer on the Practice of Medicine, and one of the physicians to Guy's Hospital. London, 1827. 4to. pp. 231, with sixteen coloured plates. - - - - - - - - 40

2. Anatomisch Chirurgische Abbildungen nebst Beschreibung der Chirurgischen Operationen, nach der Methoden von Rust, Græfe und Kluge. Von Ludwig Joseph Von Bierkowski, &c. &c. Berlin, 1826. 1 vol. 8vo. pp. 576. (Second vol. not yet published.) With forty Lithographic plates in folio. - - - - - - - - - - - - 409

3, Histoire Anatomique des Inflammations. Par A. N. Gendrin, M. D. Secrétaire-Général du Cercle Médical de Paris, &c. &c. Paris, 1826. 2 vols. 8vo. pp. 1364. - - - - - - - - - - - - - - 41

4. Traité de l'auscultation Mediate et des Maladies des Poumons et du Coeur. Par R. T. H. Laennec, Medécin de S. A. R. Madame Duchesse De Berry, Lecteur, et Professeur Royal de Medecine au college de France, Professeur de Clinique à la Faculté de Medecine de Paris, &c. &c. &c. Seconde Edition entirement refondue. Toms. 2. Paris, 1826, pp. 1518.

A Treatise on the Diseases of the Chest, and on Mediate Auscultation. By R. T. H. Laennec, M. D. &c. &c. Second edition, greatly enlarged. translated from the French, with notes and a sketch of the author's life, by John Forbes, M. D. Member of the Royal College of Physicians, and Senior Physician to the Chichester Infirmary. With plates. London, 1827, pp. 722. - - - - - - - - - - - - 4

5. Grundriss der Chirurgischen operationen, von D. Gottlob Bernhard Schreger, Kœnigl, Baierschem Hofrathe, &c. &c. Nurnberg, 1826, 2 vol. 8vo. pp. 1000, third edition, revised and enlarged. - - - 41

6. Manuale Clinico di Obstretricia di Francesco Asdrubali. Tomi 2^e^ 8vo. Roma, 1826, pp. 835 - - - - - - - - - -

7. Sulla Ottalmia Postolar-Contagiosa. Del Chirurgo Gaetano Buzzi. Prato, 1825, 8vo. pp. 100. - - - - - - - - - - 41

8. An Inquiry into the Nature and Treatment of Diabetes, Calculus and other Affections of the Urinary Organs: with Remarks on the importance of attending to the state of the Urine in Organic Diseases of the Kidney and Bladder; and some Practical Rules for determining the Nature of the Disease from the Sensible and Chemical Properties of that Secretion. By William Prout, M. D., F. R. S. From the second London edition, revised and much enlarged; with notes and additions by S. Calhoun, M. D. &c. Philadelphia, 1 vol. 8vo. pp. 308. - - - - 417

9. Encephali Anatomica Descriptio a Doctore Lupi, filio, peracta. Romæ, 1826, pp. 69. - - - - - - - - - - - - - - 418

10. Replica di L. Metaxà all'apologia di alcune postille Scritte da D. Meli. Roma, 1826, pp. 75. - - - - - - - - - - - - 419

QUARTERLY PERISCOPE.

FOREIGN INTELLIGENCE

ANATOMY.

Page.

M. Amussat on the Structure of the Nerves - - - - 421

Spurious Hermaphrodism - ib.

3. Case of Monstrosity. By J. Tucker, Esq. - - - ib.

Page.

4. M. Amussat on the Structure and Derangements of the Lymphatic System - - - 422

5. M. Berard, Jr.'s Case of Bilobate Uterus - - ib.

PHYSIOLOGY.

6. On Vital Motion. By M. H. Dutrochet - - - - - 423

7. On the Absorbents in Fishes. By Professor Fohmann - 428

8. On the Gastric Juice - 429

9. On the uses of the Bile. By Professors Tiedemann and Gmelin - - - - - 431

10. On the Chyle. By Professors Tiedemann and Gmelin - 432

11. Case of Superfœtation - 433

12. Sir Astley Cooper's Case of Nourishment by Clysters - 433

13. Metastasis of Erysipelas of the Head, to the Serous Membrane of the Heart. By Robert Adams, Esq. - - - - - - - ib.

14. Professor Rossi's Case of Conception with Closure of the Vagina - - - - - - - ib.

15. Causes of Monstrosities. By M. Velpeau - - - - 434

PATHOLOGY.

16. Clinical Report on the State of Fever. By M. Bally - - 434

17. Cancer of the Cardia - 437

18 Disease of the Liver - 438

19. Diabetes Mellitus - - 439

20. Congenital Enlargement of the Heart - - - - ib.

21. Case of Inflammation of the Arteries. By Richard Bright, M. D. 440

22. Case of Metastasis of Rheumatism from the Synovial Membrane of the Extremities to the Serous Membrane of the Heart. By Robert Adams, Esq. . 440

23. Case in which Inflammation was propagated from the Surface to the Heart. By Robert Adams, Esq. - - - 441

24. M. Lisfranc on Chorea - ib.

25. Rupture of the Heart - 442

26. Case of Active Enlargement of the Heart with Rupture of the

Page.
Cordæ Tendineæ of the Mitral Valve - - - - - 442
27. On the distinction between Rheumatic Inflammation of the Heart and Inflammation of the Serous Membrane of the Pericardium. By Robert Adams, Esq. - - - - - 443
Page.
28. Asphyxia as a cause of Death in Small-Pox. By Dr. Rennes 444
29. M. Chaussier's Case of Fracture of the Sternum by Muscular Action - - - - - ib.
30. On the Accidental Heterologue Tissues. By Aug. Boulland, D. M. P. - - - ib.

MATERIA MEDICA.

31. Dr. Sundelin on Proto-Nitrate of Mercury - - - - 445
32. On the Medicinal Properties of Madar. By Wm. Cumin, M. D. ib.
33. On the Bichromate of Potass. By Wm. Cumin, M. D. - ib.
34. Sir Astley Cooper on Styptics - - - - - - - 446
35. Dr. Martin on Application of Medicines by the Skin. - ib.
36. M. Bland on Sulphate of Quinine - - - - - - 448

PRACTICE OF MEDICINE.

37. Cases of Inflammation of the Tongue - - - - - 448
38. Employment of Iodine in the Treatment of Cynanche Parotidœa. By Dr. Neumann - ib.
39. Case of Cancer of the Breast cured by antiphlogistic Treatment. By Prosper Gassaud 449
40. Phagedenic Ulceration of the Gums in Children - - 451
41. Treatment of Acute Rheumatism by Tight Bandaging. By M. Velpeau - - - ib.
42. Kirkhoff on Prussiate of Iron in Epilepsy - - - ib.
43. M. Lisfranc on Chloride of Soda in Tetter - - - 452
44. Muriate of Iron in Softening of the Stomach. By Dr. de Pommer - - - - - - ib.
45. Case of Dysentery cured by Ipecacuanha. By R. Bright, M. D. - - - - - ib.
46. On Hydrops ventriculorum cerebri acutus. By Dr. T. H. Kopp - - - - - 453
47. M. Emangard on Croup - 456
48. Treatment of Diabetes. By Dr. G. C. Montani - - 457

OPHTHALMOLOGY.

49. Description of a Cataract Needle. By Arthur Jacob, M. D. 457
50. New Method of Treating Amaurosis. By M. Majendie 458
51. On the use of Chloruret of oxide of Calcium in Purulent Ophthalmia. By Dr. Varlez 459
52. M. Wishart on Gonorrhœal Ophthalmia - - - - ib.
53. Ossification of the Cornea 460

SURGERY.

54. Injury received in Dissection, without the Operator being Wounded. By Sir Astley Cooper 460
55. Casini on Periostitis - ib.
56. Recto-vesical Operation for Stone. By Dr. Wenzl - 461
57. Sir Astley Cooper on the Remedies employed for the cure of Tetanus - - - ib.
58. On the use of Sutures to preserve the Approximation of the lips of Wounds. By Sir Astley Cooper - - - - 461
59. Case of Aneurism cured by Compression. By Dr. A. De Winter - - - - - ib.
60. Treatment of Wounds of the Trachea and Œsophagus. By Sir Astley Cooper - - 462
61. On Amputation and the Omission of Ligatures to the Vessels. By Dr. L. Koch - ib.

PAGE.
62. Civiale's Operation for Destroying the Stone - - 464
63. Sir Astley Cooper on Fistulous opening into the Larynx 467
64. Sir Astley Cooper on Wounds of the Intestines - - ib.
65. Lithotomy - - - - 468
66. M. Lisfranc on Cancer of the Rectum - - - - ib.
67. Amputation of the Neck of the Uterus. By M. Lisfranc ib.

MIDWIFERY.

68. Accouchement after the Death of the Mother - - - - 468
69. Dr. Fridzt's Case of Cæsarian Section - - - - - ib.
70. Case of Hydatids in the Uterus. By W. Anderson, M. R. C. S. - - - - - 469
71. M. Dance on Obstinate Vomiting during Pregnancy - ib.
72. Cæsarian Operation - 470

MEDICAL JURISPRUDENCE.

73. Poisoning with Monkshood 471
74. Extraordinary Suicide - ib.
75. M. Cloquet's Case of Rupture of the Bladder - - 472
76. Death from Inanition - ib.

CHEMISTRY.

77. M. Vaudin on Rheine, a peculiar Substance in Rhubarb 472
78. Test for the Presence of Nitric Acid. By Dr. Liebig - - ib.
79. Fallacy of Infusion of Litmus as a Test. By M. Magnus - 473
80. Analysis of the Bile. By Professors Tiedemann and Gmelin ib.

MISCELLANEOUS.

81. On Vaccination Repeated on the same Individuals. By Dr. Dornbluth - - - - 474
82. Account of a Varioloid which prevailed in an Establishment for Instruction at Berlin. By Dr. Stosch - - - - - ib.
83. Pharmaceutical School of St. Petersburgh - - - - 474
84. Dr. G. Lostritto on Insanity 475
85. Medical Statistics - - ib.
86. Dr. Chambers on Pulmonary Abscess - - - - - ib.

AMERICAN INTELLIGENCE.

Notice of the Influence of Mercury in the production of Hepatic Affections. By N. Chapman, M. D. - - - - 476
Notice of the Efficacy of Tobacco in Cynanche Trachealis. By N. Chapman, M. D. - - - 477
Case of Tetanus successfully treated with Arsenic. By William J. Holcombe, M. D. - - ib.
Description of a Bandage Roller, with some Remarks on Bandages. By W. E. Horner, M. D. &c. [With a plate.] - - 479
Case of Twins. By A. Deleon, M. D. of Camden, S. C. - 480
Case of Excision of a part of the Spleen. By W. B. Powell, M.D. of Ky. - - - - - 481
Case of Femoral Aneurism of the Left Thigh, and Popliteal Aneurism of the Right Leg, Successfully Treated. By Valentine Mott, M. D. Professor of Surgery in Rutgers Medical College, New York - - 482
Gibson's Improved Trephine 483
Report of the Committee appointed by the Philadelphia Medical Society to inquire into the remedial value of the more promi-

PAGE.

nent specifics now sold in Philadelphia - - - - 483

An Introductory Lecture to the Institutes of Medicine. By Samuel Jackson, M. D. Assistant Lecturer to the Theory and Practice of Medicine and Clinical Medicine in the University of Pennsylvania - - 490

Martinet's Manual of Pathology *ib.*

System of Pharmacology. By Jonathan A. Allen, M. D. Professor of Materia Medica and Pharmacy - - - - - *ib.*

Journal des Sciences Naturelles de l'Amérique du Nord. Publié par Xavier Tessier, ci-devant Editeur du Journal de Medecine de Québec - - - 49

New Edition of Professor Chapman's Therapeutics - - 49

Lecture Introductory to the Course of Anatomy and Physiology, in Rutgers Medical College, delivered on Friday, Nov. 2, 1827. By John D. Godman, M. D. Professor of Anatomy and Physiology - -

Necrology - - - - 49

Index - - - - -

THE

AMERICAN JOURNAL

OF THE

MEDICAL SCIENCES.

ART. I. *On the Secale Cornutum, or Ergot.* By W. P. DEWEES, M. D. Adjunct Professor of Midwifery in the University of Pennsylvania.

THE ergot has obtained throughout this country, as well as in Europe, a reputation as a powerful auxiliary in the practice of midwifery. But great diversity of opinion seems to exist, as to the precise estimation in which the article should be held; its claim being extravagantly urged by some practitioners, while by others it has been condemned as useless, and its employment even deprecated. Under these circumstances, it may be considered as not altogether uninteresting to inquire, what are its real powers; under what circumstances it is useful; and, what are the rules which should be attended to, in order to prevent any evil following its exhibition.

The action of the ergot appears to be specifically upon the uterine fibres; urging them sooner or later to more or less violent contraction. It is not the alternate contraction alone that is increased by this substance; the tonic, which is of much more value, is also powerfully augmented; since it can, in consequence of this power, be most advantageously employed, in many cases where this effect is all-important. In this respect it appears different from other stimuli, which may exert an influence upon this organ; such as opium, the oil of cinnamon, volatile alkali, &c.; or the mechanical stimulus of the forceps, vectis, or the hand.*

---

* I have never witnessed any exaltation of the powers of the arterial system, or any other marked effect, (if we except its specific action,) from the exhibition of the ergot, though I have been very attentive to the subject. But it is declared by Dr. Oslere, on the authority of Dr. Erskine and others, that it slightly increases the fulness and frequency of the pulse; produces a glow

Each of the stimulants just mentioned, has been known to rouse the alternate contractions of the uterus into a temporary, and sometimes successful action; but after neither does the tonic contraction follow, with any degree of certainty; nay, we may with much truth declare, that inertia of this organ is very apt to follow their employment. Thus we witness hæmorrhage sometimes succeed the use of either of the remedies just named, though successfully exerted as regards the mere delivery. But so far as my own experience goes, or a pretty extensive inquiry will justify the declaration, I can say, that neither myself, nor such of my friends of whom I have asked the question, have ever witnessed such a consequence follow the use of the ergot.

So far then, I think we may with much confidence declare, that every other stimulus which has contributed to the energy of the uterus, except the ergot, has been followed occasionally by inertia of that organ; this fact is of high practical importance, as it leads to an almost certain mode of treating such females as may be habitually liable to floodings after delivery. It also, on the other hand, points out a caution of equal practical importance; namely, not to exhibit it, when there may be a chance that turning may be necessary; but more of this presently.

There is another peculiarity attending the action of this substance, not less remarkable, perhaps, though not equally important; namely, the promptitude of its action; for we have constantly observed, that if it do not manifest an influence in twenty minutes, or half an hour at farthest, it utterly fails. The action of this substance is generally so extremely prompt, as sometimes to create a doubt of its agency in the minds of those unaccustomed to its influence But I am quite certain, that the ergot never acts with so much efficacy as when it acts quickly; indeed I might say that its success is almost in proportion to its promptitude.[*] By many, this very sudden action of the uterus has been attributed to coincidence, rather than the effect of the

---

over the surface; excites nausea and sometimes vomiting, and pain and giddiness of the head.—*Philadelphia Journal of the Med. and Phys. Sciences, No. 3, N. S.*

As far as I have been able to determine, the effects of this substance are confined to the nervous system; and through its intervention, acts specifically upon the uterus. Nor are its powers confined to the human uterus. it acts with equal and similar efficacy upon the uterus of the brute. We are told it is familiarly used near Lyons, to aid the parturient cow.

[*] Goupil says, "la rapidité avec la quelle le sèigle a produit son effect est réelment surprenente; elle feut être comparée á l'action de l'émétique." *Journal des Progrés, Vol. III.*

remedy. This may occasionally be the case, as we see changes similar to those effected by the ergot, take place as suddenly where none has been exhibited; but it would be unfair to declare this to be the case always.

Thus, on the 11th of November, 1827, I was called to Mrs. V. in labour with her fifth child; the waters had discharged themselves half an hour before my arrival, and the patient had experienced a number of very smart pains. After the escape of the liquor amnii, they abated both in force and frequency. On the accession of a pain I examined my patient, and found the presentation to be a first presentation, and the head arrived at the inferior strait; the mouth of the uterus was fully dilated, and every thing gave promise of a speedy delivery. But the pains became still more feeble and longer apart, and after waiting an hour and an half for their amendment without advantage, I resolved upon exhibiting the ergot; especially as my patient became clamorous for its exhibition. The ergot was accordingly sent for; the messenger had scarcely left the house, before the powers of the uterus were spontaneously roused, and with such efficacy that the child was upon the point of being born, when it arrived; it was, therefore, not given; ten minutes more were all that was necessary for the completion of the delivery. In this case, had the ergot been given, the alteration in the action of the uterus would doubtless have been attributed to it, by those unacquainted with the peculiarities of its action; yet an experienced eye and ear would readily have detected its want of efficacy, did it exert no power, as well as be able to determine its agency, if it co-operated with the newly-awakened powers of the uterus.

As regards myself, I have the most firm reliance upon the powers of the ergot. And, the character of its action is so distinctly marked, that a very little observation will enable us to detect it. Whether or not the peculiarity of the effort produced by the ergot has been observed by others, I cannot say;* it appears to be perfectly well defined and characteristic; so that I think I am always able to distinguish the cases of coincidence, from those in which the ergot was decidedly operating.

When ergot has been administered with success, we find the uterine effort not only more quickly repeated, and more powerfully exerted, but these efforts are accompanied with less suffering, than the same apparent exertions of this organ, where not urged by this drug,

---

* Many speak of its specific action; or of its specific influence, but I do not recollect to have seen any account of the details, in what these specific effects consist.

The woman, when interrogated with respect to her feelings, expresses her sensations by saying she feels "as if every thing was forcing from her;" but at the same time admits, that the pains have not the same character with those she suffered before: indeed, it very frequently happens, that there is a great abatement of suffering, by converting a concentrated pain, and this most frequently in the back, to a more generally diffused one over the abdomen; or by obliging the back to participate if the abdomen has been the particular seat of it. At the same time, it must be confessed that the intervals between the contractions are more uncomfortable, as an almost constant nisus is kept up by the excited, or rather, it would seem, the goaded uterus, though the sensation does not amount to pain. Now the presence of the circumstances just noticed, constitute the peculiarity of the action of the secale cornutum.

Some of my medical friends, but they are very few indeed, declare they never have witnessed *any effect whatever from the ergot even when it has been administered in large doses.** I account for this discrepancy of result, only by supposing the ergot which they employed was effete; a circumstance, I have reason to believe from experience, of no unusual occurrence.

The like want of faith in the powers of this article, seems to prevail with many respectable practitioners in Europe; and which may be accounted for, perhaps, upon the same principle. Dr. Davis, an accoucheur of deserved eminence, says that "the pretensions of the secale cornutum have been generally known to the profession for nearly twenty years; yet the actual fact of its power, has not been satisfactorily established; nor is there evidence of its having, in a single instance, superseded the necessity of using the forceps."† This assertion, it must be observed, is one which admits of no possible demonstration; since it would be impossible to prove, that the case in which the ergot appeared to be successful, would absolutely have required the use of the forceps, or that the cases relieved by the forceps might not, in many instances, have been successfully treated by the ergot: yet so far, I can safely aver that a number of instances have occurred, in which I believe I should have employed the forceps, previously to my acquaintance with the powers of the ergot, but which were terminated by this drug, both promptly and safely. And fur ther: I am certain that I do not now use the forceps once, where I formerly used them ten times.

---

* Chaussier and Madame La Chapelle, also declare they have never witnessed any effects from the ergot, in the trials they made of it, in "La maternité de Paris."

† Elements of Operative Midwifery.

And the reason of this abatement in the employment of the forceps, may I think, be justly attributed to the almost universal use of the ergot, by every kind of practitioner of midwifery; and hence I presume, that the secale cornutum, now achieves deliveries, that would have required the forceps formerly; for were this not the case, I think I should be called upon as formerly, to aid the labour with these instruments.

As every thing depends upon the proper quality of the ergot, it should be kept whole in a glass bottle with a ground stopper; and only powdered, pro re nata; nor should it ever be used when it exceeds a year in age;[*] for the ergot, like almost every other vegetable substance, is easily acted upon by heat and moisture; and consequently, it is easily deteriorated when exposed to their influence. I have in several instances failed to produce the slightest effect with the ergot procured at one shop: whilst, that from another, in the same patient, has been as prompt, as efficacious.

I have generally administered the ergot in substance: some prefer it in infusion.[†] Twenty grains in a little sugar and water may be given at once; and I seldom exceed this quantity; as I have rarely found the further exhibition of it attended with better effect. My valued friend, Dr. George Holcombe, of Allentown, N. Jersey, objects very strongly to the quantity just named; and proposes much smaller doses, but more frequently repeated; or as often as it may be necessary.[‡]

---

[*] We are however informed, by Lorinser, (Edinb. Med. and Surg. Journal, for Oct. 1826, p. 453,) that it preserves its powers perfectly for two years, as far as regards its operation on the stomachs of men; but whether it retains its specific powers upon the uterine fibre for that period, does not appear to have been ascertained by his experiments. On the other hand, we are directed by Goupil, (Journal des Progrès des Sciences, et Institutions, &c. vol. iii. 1827, p. 170,) in order to be certain of the peculiar properties of this substance, to use it the same year in which it has been collected; and that it must be kept in bottles hermetically sealed; and not be powdered, but as it may be wanted.

[†] Bordot informs us, that the old women in the department of "Cote d'or," infuse a handful of this substance in a cup of water, and give a table-spoonful of it every five minutes. This dose, Goupil observes, is much stronger than that pointed out by accoucheurs; but he says we must notice the manner in which it is taken, as it is much less active than when given in powder.—*Ib.* p. 171.

[‡] See Philada. Journal of the Medical and Physical Sciences, Vol. II. N. S. p. 317

I think I am every way right, when I say, that there is no decisive instance extant, in which the "ergot" has had a direct unfriendly influence upon the child. I am aware much has been said to the contrary, by many respectable practitioners; but I think it would be no difficult matter to show, that when a still-born child has followed the exhibition of the "ergot," it has been constantly owing to the following circumstances. First, it has been given too early; that is, long before any reasonable expectation *should have been entertained*, that delivery would soon follow its exhibition, owing to the want of relaxation in the soft parts: second, given when the head has not been well situated, and the practitioner perhaps not aware of this circumstance; consequently, making a wrong estimate of the time that must elapse before delivery could take place, after its exhibition. This latter error very commonly arises, from the facility with which the head of the child may generally be felt; or its supposed disposition to escape through the external parts, because they, as well as the uterus, are favourably disposed. No mistake is more common, among those who are ignorant of the mechanism of labour; for they suppose there is little to do; and "were the pains but *a little stronger*, the child would soon be delivered:" under this delusion the ergot is given, with the expectation of a speedy issue. But this does not take place agreeably to their hopes, and very much to their surprise: for they are altogether unable to account for its failure. Whereas, an enlightened practitioner, would instantly have detected the wrong position of the head, and would have seen at once, how much was yet to be effected before delivery could take place. He would also have been able, very nearly, to determine the time and the degree of effort it would have required to terminate the labour; and he would have withheld the ergot, until more had been done by the unaided contractions of the uterus. But the better to illustrate this fruitful source of error, we will first refer to the position of the head, when not well situated: and second, to the difficulty the head sometimes finds in undergoing these changes, even when it is well situated, and the soft parts, favourably disposed.

1st. The difficulty arising from the position. Thus, in the fourth, fifth, and sixth presentations, there may be much delay, from the forehead being sometimes obliged to come under the arch of the pubes; in the two first, probably, if not changed: and unavoidably, in the last: which circumstance may have escaped the calculation of the practitioner at the time he exhibited the ergot, or he may have been ignorant of it; consequently much unlooked for delay may ensue, and this sometimes to the injury of the child and the uterine parietes. But in this case no blame should attach to the "ergot" specifically, for the same consequences will follow from the long-continued efforts of the uterus, where none of this substance has been administered. **Baudelocque** gives us instances of this kind, and every practitioner of any standing must have observed the same thing. Indeed the danger to the child after the evacuation of the waters, is always in proportion to the tonic power and the continuance of the alternate contractions of the uterus; hence we have always reason to apprehend that the child will be still-born, when the uterine contractions continue very long, and with much force after the discharge of the liquor amnii: we are persuaded this is agreeable to the experience of all who practice midwifery. If this be so when no "ergot" has been administered, it may certainly, á fortiori, happen after it has been given, without any blame justly attaching to its powers. Some have carried their apprehensions of this substance so far as to declare it will produce vesications, and inflict other injuries upon the child's skin in the short time that shall elapse after its exhibition and the final termination of the labour. This is even more incomprehensible and incredible than the influence of the imagination upon the fœtus in utero, at least it should be classed with it.

2d. The difficulty the head sometimes finds in undergoing the changes necessary for its escape from the pelvis when the soft parts are well disposed.

This may arise from several causes. First, when a proper relation does not exist between the head and the pelvis, even when the head is well situated. When this happens, a long series of efforts will be required to force the posterior fontanelle to place itself under the arch of the pubes, and nothing but an enlarged experience, with an entire knowledge of the mechanism of labour will enable the practitioner to determine the quantity of force, and the lapse of time that will be required for this purpose. In this case, should the "ergot" be resorted to, it will be blamed, if the child be still-born, when it is altogether the fault of the practitioner—for in this case the "ergot" should not have been given, so long as the natural pains continued powerful; for it is not so much by multiplying the force, as by repeating its application, that the desirable end is effected. We have known the "ergot" given under these circumstances, and the uterus to become exhausted by being thus unduly urged; and the only resource ultimately has been in the forceps. Second; at other times when the posterior fontanelle has even placed itself under the arch of the pubes, it will sometimes require the long-continued and the often repeated efforts of the uterus to carry the parietal protuberances below the tubers of the ischia. Now if "ergot" be given in this case, and the child be still-born, it may be blamed, when it had no agency in the disaster.

Dr. Henry Davies says, "it may be observed that in some cases, when the pelvis was a little confined, and when the head was not sufficiently low down for the application of the common forceps, the secale has been successfully used, and the child delivered with the forceps: very great discretion in these cases is required."* Dr. Davies gives several well marked instances of the influence of the ergot in feeble action of the uterus.

But certainly the most common cause of the failure of the "ergot," is owing to its injudicious and indiscriminate exhibition. It has been given we have well ascertained, before the membranes have been ruptured, the os uteri at all dilated, and the external parts quite rigid. What but defeat and injury can result from such an improper use of this powerful aider of uterine contraction? This substance is now in familiar use among midwives who have neither principles nor experience to direct its proper employment, and we are credibly informed it is used in this city by a practitioner in extensive business, in almost every case to which he is called.

This is truly the abuse of a valuable remedy; for if our information be correct, the too free use of it in this gentleman's practice has occasioned very many prolapsus uteri. This effect of the ergot may perhaps be questioned by some, but I have not the smallest doubt of the fact, from what I have seen when this medicine had been improperly taken. A lady aborted at a little beyond the fifth month, with twins. The involucra did not come away for several days after the expulsion of the embryos; and as these came off in one mass very soon after taking twenty grains of ergot in powder, the lady could not be persuaded but that one of the placentæ remained, and became very anxious for its discharge, and desired that another dose of the ergot might be given her. This I absolutely refused; but at the same time assured her in the most positive manner that nothing remained to come away. She, however, it seems was not convinced; for I had scarcely left the house before she caused another portion of the ergot to be given her. The consequences were a repetition of violent pains, and the escape of a considerable portion of the uterus through the os externum. She became now excessively alarmed, and I was sent for in haste. I found her in great agony; an agony resembling that of the last moments of labour; and upon examination the uterus was found in the situation just mentioned.

---

* Medical and Physical Journal, July and August, 1825

The uterus, owing to the constant and violent nisus created by the ergot,[*] was restored with some difficulty, and the pains were appeased after a while by large doses of laudanum. She was obliged to wear a pessary for a long time before the uterus recovered its position.

I am, therefore, convinced that much future injury has been sustained by giving this medicine in cases where there is little or no resistance to be overcome; for in such cases the increased efforts of the uterus, produced by the ergot, continue after the child is delivered as its impression does not immediately wear off. In this case, it took place at a time when the uterus had nothing to support or retain it within the pelvis; it must, therefore, become prolapsed if not protruded.

From what has been said, it would appear that the ergot is a powerful medicine; so powerful, indeed, that well defined rules should be laid down for its use. It would seem that it is the improper exhibition of this drug, and not any specific power, that creates the evils but too commonly charged to it; also, that there is no satisfactory evidence of its exercising any baleful effects upon the child in utero.

The following rules for the use of the ergot, if attended to, I think will prevent any evil following its exhibition.

1st. It should never be given before the membranes are ruptured, the os uteri dilated, and the external parts disposed to yield.

2d. It must not be used so long as the natural pains are efficient, and competent to the end.

3d. But should they flag, from any cause, it may be given; provided the labour be a natural labour according to our acceptation of the term "natural labour:" that is, when the head, (if well situated,) the breech, the feet, or the knees, present. For independently of any accident which may complicate the labour, it is sometimes desirable, for the safety of the child, to hasten it when the natural powers are incompetent to this end.

4th. And if the labour be accompanied by any such accident as flooding, convulsions, syncope, &c. it may sometimes be employed to great advantage, provided rules 1 and 2 are not violated.

5th. It may be used very often with much advantage in every kind of premature labour; and at full time, when the placenta is not thrown off, and the uterus is found in a state of atony.

---

[*] This effect of the ergot has often been noticed; the impression it makes upon the nervous system remains a long time, sometimes even after this substance has been rejected from the stomach; in this respect it is like opium and some other narcotics. Desgranges assures us he has seen the ergot ejected by vomiting, and yet the delivery has gone on with equal speed and certainty.

6th. Where flooding takes place after the rupture of the membranes; the os uteri well dilated; the pains feeble, but the child well situated.

7th. Where the head of the child has been left in the uterus by being separated from its body.

8th. Where the uterus is painfully distended by coagula.

Dr. Ward, of New Jersey, recommends that the ergot should be used, "in alarming uterine hæmorrhages, which sometimes take place before delivery, whether it takes place in consequence of a detachment of some portion of the placenta, it being attached to the fundus uteri, or whether it be owing to a separation of its attachment over the orifice of the uterus." In this advice, I cannot agree with this respectable practitioner; for, in the first instance, he states there can be no advantage derived from exciting or increasing pain, unless the os uteri be well opened and the membranes protruding, that they may be easily ruptured, if this can be done with propriety;* for until the liquor amnii be expended, the hæmorrhage cannot be arrested by exciting the alternate contraction of the uterus; and the tonic, by which this discharge can alone, under such circumstances, be stopped, cannot take place until the membranes have given way.

In the second case in which Dr. Ward proposes the ergot, we apprehend it would be decidedly mischievous; as it is found that in placental presentations, the flooding is always increased by pain; as it directly tends to augment the separation of the placenta.

It may, however, be said, that in the unavoidable hæmorrhage, an advantage may be derived from the exhibition of the ergot, by hastening the labour, though it may for a short time increase the discharge. But in order that this reasoning may have any value as a practical precept, the cases in which this advantage could be derived should be extremely well defined; nothing should be left contingent in a complaint so dangerous, and which has but one successful mode of treatment, so far as we yet know; namely, the delivery of the child. Now, with these admissions, we are well disposed to receive any evidence in favour of the remedy proposed, and for the particular species of hæmorrhage in question. And, if Dr. Ward will assure us, from his own experience, that the ergot will supersede the necessity of artificial delivery, from the promptness with which it effects delivery, we will hail this substance, as one of the most valuable of our therapeutical agents; but until this is done, we shall feel a reluctance to adopt this remedy in the cases under consideration, as *reasoning* appears to be decidedly against its employment.

---

* We say "if the membranes can be ruptured with propriety;" for this cannot and should not always be resorted to; for instance, it should never be done when the presentation is not natural, unless we mean to proceed immediately to artificial delivery. And if this should be deemed expedient, there can be no propriety in giving the ergot, for the less opposed we are by pain, during turning, the better. It, therefore, also follows that this substance should not be given in cases where it will be certainly necessary to turn; especially if the waters have been long drained off.

Let me be borne with a little longer, as this subject is one of high interest in every point of view; for a placental presentation is always one of great danger, even under the best management; and it is almost necessarily fatal, under bad. Do not let me be supposed, in this investigation, to substitute reasoning for facts; for the very contrary would be my wish. But until I shall be in possession of unequivocal testimony in its favour, I shall remain, at least doubtful, of the safety of employing it.

I have in so many words declared, that reasoning is against the use of the ergot in the unavoidable hæmorrhage; I will now endeavour to show this to be the case. The primary object in all cases of hæmorrhage, is to arrest the bleeding; now, in the cases in question, this is particularly necessary, if it be even temporarily; and for this purpose a variety of means are resorted to; but, this cannot be done absolutely, but by delivery. Why should delivery be the only certain remedy in this case? for several reasons; first, because a temporary suspension of the bleeding is no security against its return; as the very mechanism of labour causes the placenta to detach itself from the mouth of the uterus; and when this takes place, hæmorrhage must ensue; and this in the exact ratio to the extent of the separation. Second, this being the case, it follows, that whatever tends to increase this separation, will necessarily augment the bleeding—uterine contractions have this tendency; and the ergot is almost certain to provoke or increase uterine contraction; consequently, to increase hæmorrhage. Third, because pains may exist for some time, without the os uteri being disposed to yield; yet during the return of each pain, the hæmorrhage is increased; consequently, if the uterine contractions be increased in force or frequency by any agent whatever, and the mouth of the uterus does not dilate in the same proportion, mischief, instead of good, must be the result.

For these reasons, we are of opinion, that the ergot should not be used in cases of placental presentations, as a general practice; and if used at all, it should only be when the os uteri is well dilated, or easily dilatable. In such cases, it may be occasionally useful, by urging the uterus to brisker contractions; and thus effect the delivery of the child, as speedily, perhaps, as if turning had been resorted to; especially, if this must be attempted by the inexperienced practitioner.

The ergot may be used with a fair prospect of success, when the head of the child has been left within the cavity of the uterus after the delivery of its body, when no objection can arise from the unhealthy condition of the pelvis.

I have also derived much advantage in several cases of menorrhagia, where the long continuance of the disease, rather than the immediate excess of the quantity discharged rendered it important, it should be arrested. I have given in such cases one grain, three times a day, in the form of a pill, and continued it for some time.

It may also be useful in cases of polypi; where it shall be desirable to force these substances beyond the neck of the uterus, for the purpose of applying a ligature, or with a view to their excision. I have some time since, suggested its probable usefulness in hydatids of the uterus;[*] and its value in such cases has been in part realized by Dr. Maggill.[†]

Art. II. *Case of Obstinate Cough, occasioned by elongation of the Uvula, in which a portion of that organ was cut off, with a description of the instrument employed for that purpose, and also for excision of scirrhous tonsils*, by Philip Syng Physick, M. D. Professor of Anatomy in the University of Pennsylvania. [With a plate.]

In June last, a young lady afflicted with a very obstinate cough, applied to Dr. Physick, and gave him the following history of her case, drawn up by her physician at New Orleans.

"The first circumstances which had any connection with the singular affection of this young lady, were, a complaint of constant head-ache, attended with a disposition to vomit without nausea occurring first, during convales-

---

[*] See Treatise on the Diseases of Females, Chap. "On Hydatids of the Uterus," by the author.

[†] See his interesting case in the preceding number of this Journal, p. 240

cence from an attack of remitting fever, in the middle of May, 1826. The latter symptom soon became the most prominent, and increased to a constant effort to retch, in which nothing was thrown up from the stomach, and which was not relieved by free vomiting. At this time no complaint of pain was made any where but in the head.

"Considering the gastric irritation as sympathetic of an incipient cephalic affection, leeches were applied to the temples and behind the ears, and some doses of active cathartic medicines given. No advantage was derived. The retchings became nearly constant, and from a noisy effort to vomit, it gradually changed to a convulsive cough, altogether involuntary and uncontrollable, and conveying an impression as if something obstructed and irritated the organs of respiration. This is, as nearly as it can be described, the character of the cough ever since.

"The first paroxysm increased in violence for a number of days, and until the 8th of September, when, about mid-day, after vomiting, (which was at this time not unusual with her,) in which she threw off a quantity of white tough mucus, she fell into a state of extreme prostration. The cough ceased and she appeared to be dying. From this she slowly revived through the evening, and on the next day there was a degree of reaction amounting to fever, which gradually subsided and left her quite well.

"The mucous expectoration, likewise, though at the time regarded with some interest, has, in the latter attacks, been produced occasionally in vomiting, but never followed by the same alleviation. On the recovery from the first attack, she remained well for two weeks, when she was again seized with the same spasmodic cough, attended with pain in the breast, but not preceded as before with any irritation of the stomach. This, after continually increasing in violence for about eight days, again left her in nearly the same manner it had done in the first instance. After an interval of three weeks, she had another attack of the same duration, and of extreme severity. Since this there has been two more, but at longer intervals, and not altogether of the same severity.

"The dates of the different paroxysms are the early part of September—of October—of November—of January—and of May. During the long interval between January and May, a slight cough of the same peculiar character has seized her every morning on awaking, after which she remains entirely exempt for the remaining twenty-four hours. At first it lasted for a few seconds only, but its duration gradually increased to thirty or forty minutes. Since the last violent attack it has been reduced to only a few moments continuance."

After many remedies had been used in the above case, without affording any permanent benefit, the patient was sent to Philadelphia, and Dr. Physick consulted. The circumstances appeared to him to point out an elongation of the uvula as the cause of the disease. On examining the throat, he found such an elongation actually existed. This was explained to the patient and to her friends, and the excision of a part of the uvula was performed, immediately after which all the symptoms ceased entirely, and have not since returned in the slightest degree.

In the operation of cutting off the uvula, Dr. Physick has, until very lately, used scissors; but being unable to complete the operation by one application of that instrument, several have been necessary to effect the division of the part. To obviate this difficulty, he determined to try the old instrument, as modified and represented by BENJAMIN BELL, in his System of Surgery. He found, however, that although he could divide with that instrument, the greater part of the uvula, a portion of the membrane that covers the back part of it, was not always divided, making the use of scissors necessary to cut it through. To remedy this inconvenience, he caused an instrument to be made as represented in the annexed figure, having two plates instead of one, between which the knife was passed, but still the same difficulty was experienced in cutting through the membrane on its posterior part. He then thought of wrapping a strip of waxed linen over the semi-circumference of the opening, to support the membrane until it should be divided by the knife. Thus constructed, the instrument answered his purpose completely, and cut through the whole substance of the part in an instant. Dr. Physick has since used an instrument of similar construction for the removal of scirrhous tonsils. He finds it easy to cut off the whole, or any portion that may be necessary, of the enlarged tonsil in this manner. The operation can be finished in a moment of time. The pain is very little, and the hæmorrhage so moderate that it has not required any attention in four cases in which the doctor has lately performed it.

The instrument is so accurately represented in the annexed plate, that a very brief description of it is all that can be required. Three views are given; 1st, a perspective; 2d, a front; 3d, a side view, the parts separated to show them more distinctly. The whole instrument is made of steel, and consists of two plates, *a*, and *c*, between which is the cutting-blade *b*. The upper plate, *a*, is short, and is fastened to the lower, *c*, by a screw, which passes through a groove in the blade *b*. The lower plate *c*, is longer than the upper, and is bent at one end so as to form a handle. Between these two plates is the blade *b*, one termination of which is somewhat lance-shaped and sharp, the other has a button on it, upon which the thumb is pressed, when it is wished to push forward the blade. The blade is made to move steadily by the screw, which connects together the upper and lower plate, and also by a second screw which passes through a groove in the blade and fastens in the lower plate.

In figure 2, the strip of waxed linen is represented wound round the semi-circumference of the opening.

The size of the perforated end of the two plates, and of course that of the knife must be larger in the instrument for extirpation of the tonsils, than in that for truncation of the uvula.

The instrument employed by Dr. Physick, was made by Mr. Henry Shively, No. 75, Chesnut street.

ART. III. *Observations on some points of Pathology.* By WILLIAM E. HORNER, M. D. Adjunct Professor of Anatomy in the University of Pennsylvania.

A FINE injecting matter may be pushed into any vessels into which red particles of blood can naturally penetrate. I have repeatedly filled the whole venous system from the arterial, so as to display all the fine venous meshes under the skin, and to infiltrate the body completely. Judging from these experiments, I am disposed to think that some of the phenomena of inflammation arise mechanically, and that the substance effused from vessels is in a measure according to the mass and momentum of blood flowing through them. Thus when irritation determines an increased afflux of blood to a part, if the calibres of vessels are not large enough to permit it to pass freely from the arteries into the veins, serous infiltration first of all occurs: if the afflux be augmented, then coagulating lymph, the particles of which are larger, is effused; and if there be a further augmentation of afflux, the red particles of blood are then effused through the lateral porosities of the vessels. The corresponding phenomena in fine injections, are, first the water, then the size, and lastly the colouring matter, from its particles being the coarsest of the mixture.

Though many dropsical effusions may be traced to irritation, yet I am disposed to think that some very great errors have been incorporated with their pathology, from the desire to adapt all the phenomena to one standard, to wit, inflammation. This at least I know, that in fine injections of whole adult dropsical subjects, no resistance scarcely is offered by the blood-vessels, and that the injected fluid escapes from them by their lateral parietes or porosities, as fast as it can be thrown in; manifesting thereby evidently a great laxity in their texture. This escape is generally in the order in which we see dropsies to occur, first in the ankles and feet, then up the lower extremities to the trunk; in the hands and wrist, and then up the pectoral extremities to the thorax.

The purpura urticans which occurs in the skin in dropsy, seems to be an extravasation of blood arising from the same passive or loose texture of the blood-vessels. I have repeatedly seen the same sort of ecchymosis in the muscles of dropsical subjects, and in the interstices between them.

Pathologists have said much on the distinction between venous and arterial capillary hæmorrhage; I doubt very much the practicability of making out either case very clearly and distinctly from the other, yet they have rather unsoundly drawn the inference, that spontaneous bleeding from the venous system is passive, while that from the arteries is active. Judging from mechanical arrangement, I am inclined to think that all hæmorrhage, not arising from violence or mechanical injury comes from the arteries; inasmuch as microscopical observation teaches us that the blood in getting into the extreme arteries is there confined to the smallest sanguiferous channels, and it is of course there that rupture is most likely to occur, for so soon as the blood reaches the veins the channels are larger, more dilatable, and therefore, less liable to be broken. Genuine venous hæmorrhage, is probably most frequently the result of obstruction to a large venous trunk, either by pressure on it, or by something similar; thus we see in women during pregnancy bloody spots of ecchymosis on the legs from ruptured veins; and in persons with varicose ulcers, frequent bleeding from the latter, when the erect position puts too great a column of blood upon them.

Red blood is excreted from the pleura in its severe inflammations, and judging from what I have observed, the order of the effusion is first serum, then coagulating lymph, and then red particles of blood, all of which may, as in inflammation of other textures be indicative of the gradual dilatation of the blood-vessels. The most remarkable instance of this successive secretion, excretion, or effusion, whatever it may be called, that I have met with, occurred the last winter in our dissecting rooms; in this case the marks of inflammation were all recent, and had supervened upon a tuberculous phthisis of both lungs. When inflammation occurs in the pulmonary tissue itself, it is always marked by an accumulation of red blood in their structure, giving them a red purple colour, (Bichat, Anat. Gen. Vol. 2d. p. 62.) by their increased weight, diminished elasticity, and by their being much more watery than usual, probably from the serum being separated from the red blood after death. There is also a considerable quantity of frothy mucus in the bronchia. This state of the lung is most frequently attended with a recent effusion of coagulating lymph on the pleura, and by a bloody serum in the thorax. It is, however, to be observed, that bloody serum being found in the cavity of the pleura is not an absolute proof of its being secreted or discharged in that state, because if the examination be much postponed after death, the serum effused may be tinged by the lung soaking in it.

It is owing to the blood-vessels of the lungs being so superficial, that as in the intestines, their inflammations pass off either by an increase of their natural secretion of mucus, or by the effusion of serum and of blood. Laennec has said, (vol. i. p. 116,) that a collection of pus in the pulmonary tissue in consequence of inflammation, is one of the rarest of cases, at least it is one hundred times more rare than a vomica from tuberculous matter, and a thousand times more so than empyema. In all the dissections of lungs that I have made, I have met with it but once, and that lately, (June 29th, 1827,) at the Alms-house, in which case the surrounding part of the lung was gangrenous.

Art. IV. *Clinical Reports of Cases treated in the Infirmary of the Alms-House of the City and County of Philadelphia.* By Samuel Jackson, M. D. one of the attending physicians.

In the preceding number of this Journal, a continuation of clinical reports of cases occurring in the Alms-House Infirmary was promised. Those now reported are some of the most interesting that came under my notice, during the term of my duty in August, September, and October last. The history of the diseases, is chiefly taken from the case-book, in which the student of the ward, copies from his note and prescription book, the daily observations on each case and the treatment directed. The autopsical histories are principally from my own notes, and in some instances, I have supplied from the same source omissions in the history of the cases as kept by the students, and have corrected some few inaccuracies, none of them, however, are of material importance. I have to regret that several of the cases of highest interest, in consequence of the severe and protracted illness of Messrs. Ashmead, Bettner, and Horner, who were successively taken down with fever, contracted through fatigue, and probably from exposure to putrid miasm in repeated dissections, and the foul air of some of the wards that were over-crowded with patients, were kept in too imperfect a manner to be recorded.

An unusual number of fever patients entered the infirmary during my period of attendance. In August and September, most of the cases occurred in newly-arrived Irish emigrants. They were generally persons of temperate habits, and good constitutions. This fever was a gastro-enteritis, with meningeal or other complications. Its occurrence in this class of people, I attribute to the sudden alteration in their diet, and change of climate. On inquiry, I uniformly received the information, that in Ireland, their diet had consisted of potatoes, oat meal, or buttermilk. Several had seldom tasted meat, and none oftener than three or four times in a year. From this temperate and moderate diet they were transferred at once, on ship-board, to animal food of the most stimulant character—salted meat. After arriving in the United States, they fell into our habit of eating meat daily, and sometimes two and three times a day.

The period at which they arrived, was also propitious to the production of this form of disease. July and August are the months of greatest heat; which never fails to awaken the gastric sensibility. Between the skin and stomach the sympathy is direct, and when the first has its irritations or actions excited, those of the last are increased at the same time. From this cause, those who pass from a temperate to a warm climate are subject to attacks of gastric and intestinal diseases. The sympathy between the skin and pulmonary system is precisely the reverse.

To the combined effect of the two causes that have been mentioned, I am disposed to impute the prevalence of fever amongst the newly-arrived Irish.

By the daily papers, it appeared, that the Irish who arrived in Nova Scotia were attacked, also, with fever. It was represented as of a most fatal character; carrying off nearly all who were its subjects. It was named malignant typhus. A considerable portion of our patients, were amongst those who arrived at St. Johns, but who immediately proceeded to Philadelphia. The mortality of the disease was but slight with us, and its character generally not intractable. To what is the difference to be attributed? The plan of treatment pursued with those under our charge, was strictly antiphlogistic, and those whom we lost perished chiefly in the chronic form of disease from disorganizations, induced frequently before the patients came under treatment.

The febrile cases of the last of September and the month of October were principally amongst the blacks, and in this class were often very unmanageable. In the majority of the cases of those months, both in blacks and whites, bilious symptoms—the irritations of the hepatic organs—were unusually predominent. Few cases occurred that were not attended with a jaundiced state of the skin and eye, and on examination all the white tissues were found of a yellow tinge.

Case I. *Remittent Fever—Gastro-Enteritis.*—Rebecca Stewart, aged twenty, was admitted July 30, 1827, into the Women's Clinical Medical Ward. She had arrived three weeks before from Ireland—was a month on the voyage—healthy on board—has lived near the wharf—not exposed to the sun—been sick a week: attacked with pain in the head, debility, dryness of mouth, great thirst, and vomiting. No relief followed the vomiting. Took some medicine which vomited and purged her, and she felt better. At present she has no tenderness of epigastrium; skin very hot, face flushed and turgid, eyes full and injected, pulse full and frequent, muscular debility, nausea, deafness. ℞. Sp. mindereri, ℥viij.—sulph. magnes. ℥iss.—antim. tart. gr. iij. M. S. ℥ss. q. b. h.—Ordered cold to head and arms; barley water to drink.

July 31*st.* Seems better—pulse nearly natural—skin less hot—tongue red on the edges—its centre furred, but moist—a sensation of heaviness in the head—does not see or hear well—a little soreness at epigastrium—bowels freely opened—stools watery—all medicine forbid by Dr. Jackson. Ordered pearl barley water for drink, and cold to surface continued.

August 1*st.* Improving. Still complains of heaviness in the head, and noise in her ears, like the roaring of the sea—bowels open—no pain at epigastrium. Treatment continued as before.

4 P. M. An exacerbation of fever, probably owing to the excessive heat of the weather; declined towards night. The acidulated and iced water were relished and freely taken; also the cold ablutions, which gave much relief.

2*d and* 3*d.* All the symptoms abating—the face becoming pale—skin moist—tongue losing its redness—sight and hearing improved.

4*th.* Some little fever—bowels costive. ℞. Ol. Ricini, ʒii.

5*th.* Is sitting up this morning.

10*th.* Convalescence uninterrupted. Allowed chicken soup; then milk, bread, roasted potatoes, &c. for diet.

Discharged well.

Case II. *Remittent Fever—Gastro-Enteritis.*—Mary Stewart, aged eighteen, admitted July 30, 1827, into the Women's Clinical Medical Ward. She is a sister of the subject of the foregoing case—had entered into service, and was employed in washing—attacked with the ordinary symptoms of fever, but the pain in the head unusually acute. Took an emetic and several doses of salts, which made her worse. She had no thirst previous to taking the emetic. At present her face is very much flushed—eyes injected—head painful—pulse quick, but not full—tongue furred and little dry—red on the edges

—thirst urgent—bowels open—her skin is hotter, and her aspect altogether less favourable than that of her sister. Ordered the following:—℞. Sp. mindereri, ℥viij.—sulph. magnes. ℥iss.—antim. tart. grs. iij. M. S. ℥ss. q. [illegible].

July 31*st*. Thinks that she feels a little better—pulse still quick and frequent—head heavy—seeing and hearing both impaired—bowels open—tenderness at epigastrium. Prescription of yesterday forbid by Dr. Jackson; ordered iced acidulated drinks; cold ablution; fifty leeches to epigastric region; the extremities to be enveloped in warm fomentations.

August 1*st*. No better—skin hot and dry—tongue red but moist—complains of pain and ringing in her head—pain at epigastrium—is weak—thirst intense. Ordered ablutions to be continued, and injections of cold mucilage to be repeated.

4 P. M. An exacerbation of fever—head much affected—eyes dull and heavy. Ordered fifty leeches to back of head and along the jugulars.

10 P. M. Violence of symptoms abated. She found much relief from the leeching and cold applied to arms, face, and head.

2*d*. Is better this morning. Her skin cooler—face less flushed. Treatment continued—℞. Magnes. ust. ʒii.

3*d*. Fever abated in violence.

4*th*. Not so well this morning. Fever increased about the middle of the night—mind quite flighty—skin hot, particularly about the head—tongue clean but moist—much thirst—pulse quick, feeble, but frequent—breathing hurried and laborious—pain at epigastrium—bowels open yesterday. Ordered cold applications to head and epigastric region, and injection of salts.

Night.—The cold has been continually applied, and she seems much relieved—skin far less hot—the eye less dull and watery.

5*th*. Exacerbation about the middle of the night—the mind wandering. She feels better this morning—less heat and flushing—breathing more natural—eye still dull and injected—pulse a little frequent—she sleeps a great deal—stools natural. Treatment continued as before.

Night.—Fever abated very much.

6*th*. Escaped the delirium and exacerbation last night—little fever this morning—face less flushed—skin softening. Treatment continued.

7*th*. Complete remission this morning. Ordered oat meal gruel.

8*th*. No fever—head still heavy—tongue less red.

9*th*. Improving—centre of tongue remains brown.

15*th*. Fever gradually declined. Its absolute solution marked by no crisis. Her bowels, when necessary, were simply moved by small doses of magnesia or oil; the discha[illegible] natural. She had chicken-water, sago, &c. allowed for diet, and she has totally recovered without a relapse or sequelæ of the disease.

Observations.—The preceding cases recorded by R. L. FEARN, student, are examples of common remittent fever or gastro-enteritis, so common in the commencement of warm weather. They manifested cerebral symptoms, the invariable concomitants of acute gastric inflammation. The cerebral sympathetic irritation did not acquire an intensity sufficient to become independent of the gastric inflammation in either case. In Mary, on the first of August, the cerebral symptoms rapidly increased, and the irritation of the arachnoid and pia mater threatened to take the lead in the train of morbid phenomena. The application of leeches along the jugulars, and around the base of the head gave an immediate check to this complication.

The prescription directed in both cases previous to my visit to the patients, though a common formula in fevers was discontinued, that the existing inflammation of the mucous tissue of the stomach and intestines might be attacked by the most direct and appropriate means. That formula is certainly far preferable to the active and drastic cathartics frequently resorted to, and the employment of which has been so much misapplied and abused since the publication of Hamilton's work on purgatives. Still its immediate direct mode of operation is that of an irritant to the surface to which it is applied. This irritation it is true, under common circumstances generally produces secretion from the exhalent vessels and mucous follicles of the mucous tissue of the intestines, and a purgative operation is the consequence. This irritation and secretion are the essential element in the action of a purgative. But it is a well demonstated fact, that an irritant applied to an irritated surface, will as frequently dry up and prevent secretion as excite it.

Purgatives in the acute stage of fevers attended with inflammation of the gastro-intestinal mucous tissue, when they do excite copious secretions, counteract their own injurious tendency, and often arrest or diminish the inflammation of this membrane, when it is not deeply radicated or extensively diffused. It is, however, in the experience of every practitioner, that active purgatives in fevers frequently fail to produce evacuations; they cannot bring forth secretions from a highly inflamed surface, whose actions transcend the point at which secretion can take place. The irritation of the purgative, under such circumstances, is added to that already existing, and all the symptoms are aggravated.

The excitement of secretions and evacuations by purgatives in fevers very frequently, instead of alleviating the condition of the patient, renders it much worse. It is not uncommon that an apparent amendment will ensue from very free, copious, intestinal secretions procured by purgatives, for twenty or more hours, to which succeeds an aggravation of the precursory symptoms. The depletion operated in this manner on the general circulation, serves temporarily to tranquilize the sympathetic irritation of the central organ of the circulation; and, in consequence, the febrile symptoms—frequence and force of pulse, heat of skin, &c. depending on that condition of the heart. are for a short period abated. The symptoms of the local irritation may for a time be smothered from the extent of the evacuations, but they break forth with increased violence.

The administration of active purgatives in fevers, often proves injurious, by rendering extensive a morbid irritation which may be very limited. The purgative, irritating zone after zone of the mucous coat of the alimentary canal, as it passes along, becomes a conductor of the inflammation, restricted primarily to a small portion of this structure, and spreads it over nearly its whole surface. In the tegumentary tissue of which the digestive mucous membrane is a part, erythemoid inflammation, as it is called, has a strong disposition to propagate itself, even without a provocative. From this cause, those labouring under fevers, who are treated by drastic cathartics or other irritants, have the abdomen to become tumid, hard, painful to pressure, tympanitic—to be meteorized as these collective symptoms were formerly designated; the bowels are costive, and very little flatus is discharged. Here the inflammation has not passed beyond the ileo-cœcal valve and penetrated into the large intestines. This does occur, however, sometimes, and then is added to the foregoing symptoms, a diarrhœa with varied discharges of different hues and appearances; brown, white, black, and bloody, and involuntary stools, according to the intensity of the inflammatory action. When purgatives and other irritants of the gastro-intestinal mucous membrane are abstained from, or but sparingly employed, these symptoms are of very rare occurrence, in fevers even of a high grade of action, and which may prove fatal by the disorganization of the mucous membrane of the stomach, effusion on the brain, &c.

From these principles I have adopted the practice, the oldest in medicine, and if authority be entitled to consideration, sustained by the weightiest in our profession, of abstaining generally from purgatives in the commencement of acute fevers, and of combating, by directly debilitating remedies, the excessive actions in the tissues in which they are located. From a comparative experience of several years practice on both systems, I am daily more convinced of the superiority of that I now pursue. Those cases of fever, in which the capillary irritation is of a light grade, or a limited extent, and in which purgatives prove successful remedies, the unmixed, positive antiphlogistic treatment, established on anatomical and physiological principles, will be found in the great majority to be more speedily cured, without the slightest risk being incurred of converting them into more formidable affections.

In the report of the case of Mary Stewart, it is remarked, that the fever gradually declined without any marked crisis. This circumstance is commonly observed in the diseases treated on the physiological plan. The morbid irritation being attacked in a direct manner, gradually yields, and with its diminution the sympathetic disturbances to which it gives rise, subside, and the organs resume their natural functions.

Case III. *Remittent Fever—Gastro-Enteritis.*—John Stewart was admitted July 30th, 1827, into the Men's Clinical Medical Ward. Face flushed—eyes injected and watery—skin very hot—pain in the temples occasionally darting and severe. Breathing deep and sighing—cough—tongue dry, pointed, very red, edges dry, surface of tongue a brownish fur—bowels moved, and were freely moved on the 29th by a purge—lips dry—some sordes on teeth—pulse 120, frequent, compressible. He had lately arrived from Ireland, after being six weeks at sea—was of temperate habits—was attacked July 22. Ordered neutral mixture, ℥ss. q. b. h; barley water and tamarinds; cold cloths to head, and to sponge arms with ice water; pediluvium pro re nata; cups to epigastrium; calomel and ipecac. in small repeated doses.

P. M. 4½. Fever abated—pulse rather slower and fuller—tongue the same—slight wandering of mind.

31*st.* Slept some—bowels not open—quite stupid in the night—eye watery and injected—skin hot and dry—pulse 128; moderate strength—tongue dry on surface and disposed to brown fur—teeth fuliginous—no pain—tenderness under left ribs. Ordered castor oil, ℥ss; cups to head; cold applications to abdomen; injections; thirty leeches to epigastrium; omit cal. and ipecac., and neutral mixture. Thin oat meal gruel and ice added to drink. If stupor continues after leeching, hot fomentations to legs.

Evening.—Tongue dry and skin rather hot.

August 1*st.* 4 P. M. Has been quite flighty—face is flushed—skin dry and hot—tongue dry and some fur, in the morning it was dark—bowels open—tremor of hand—pulse 130, pretty full, active, and of moderate strength. Ordered cups to head; cold injections; cold to abdomen; warmth to extremities; sago water.

9 o'clock. Arms cool—face flushed—tongue covered with thick mucous fur, and inclined to moisture—less flighty—breathing rather laborious—pulse 120, soft, but some tension.

2d. Tongue dark, crusted and cracked, edges moist—fever high during the night—flighty—discharges thin and yellow—face cool—hands dry and warm—tongue disposed to dryness.

12 o'clock. Fever abated—more moisture of tongue.

6 P. M. Fever higher—rather stupid—pulse frequent, but pretty good—tongue same. Ordered cups to back of neck.

10 o'clock. Flighty—less stupid and more talkative—fever abated—skin moist—tongue same.

3d. Pulse reduced—fever less—tongue moistening and is better—slight wandering of mind—skin natural. Cold to head and abdomen continued.

5 P. M. Very little fever—tongue thick and moist in the centre—skin nearly natural—bowels open—slight tremor of hand.

4th. No fever all night, and slept—bowels open—stools consistent and yellow—tongue cleaning at the sides, centre incrusted and moist.

2 P. M. Complete remission and moisture of skin.

5th. No fever—tongue moist and cleaning—edges clean.

7th. Convalescent.

Observations.—This case, recorded by Mr. Ashmead, senior student, was precisely similar to the preceding. Stewart is father to the two girls, the subjects of the foregoing cases, and his disease was of the same character. It yielded very speedily to the same plan of treatment. All the members of this family, though residing in different parts of the city, were attacked at nearly the same time, with the same form of disease, inflammation of stomach and small intestines. This circumstance is a corroboration of the views presented of the exciting causes of remittent fever, amongst the newly-arrived Irish in the summer season. The bowels, it is to be observed, were regularly opened without the use of purgatives.

Case IV. *Remittent Fever—Gastro-Enteritis.*—F. Martin was admitted, July 26th, into the Men's Clinical Medical Ward. His tongue was brown and dry in the centre, edges white and moist—pulse soft, pretty natural, frequent—lips dry and scaly—bowels regular. He had lately arrived from Ireland, was eight weeks at sea, well on the passage, and when arrived worked one week in an ice-house, and sometimes in the day exposed to a hot sun—has been sick last week—was taken with pains in the arms, and unable to move them—giddiness and sick stomach. Next day took a purge and continued his employment, but the day following omitted work and drank [illegible] to produce perspiration, which relieved pains in shoulder. On [illegible] had head-ache and took a purge, and was admitted on 26th with his father, mother, and sister, all having fever. Ordered barley water and lemonade; cold applications, and neutral mixture.

2 P. M. High fever—head-ache—eyes reddish—face rather flushed—tongue red at tip, edges white and furred, with the impression of the teeth, centre brown and dry—lips and teeth dry—breathing hurried—skin hot and dry—carotids distinctly seen pulsating—sickness of stomach—pulse frequent, full, and strong—no tenderness of epigastrium.

8 P. M. Skin same—some moisture of palms—soreness of flesh—soreness of epigastrium—pulse frequent—sordes collecting on teeth—tongue same, but moist.

27th. Rested badly—short cough—fever abated about twelve at night—cannot stir his legs, and very sore—pulse frequent and pretty good—blowing respiration—tongue dry, tip red and dry. Prescribed fomentations to lower extremities; cups to abdomen, and treatment continued.

6 P. M. Bowels open—tongue brown in centre—pulse the same. Skin hot—tongue moist.

28th. 8 o'clock. Rested badly last night—remission—pulse 100—tongue dry and dark in centre, edges moist and light, tip dry—sordes on teeth and lips—short dry cough, causing pain in breast—soreness of abdomen—soreness of extremities gone—bowels open—not very thirsty. R. Calomel and ipecac. M. ft. pil.; treatment continued.

5 P. M. Tongue same but moist edges—skin hot and dry—no pain of epigastrium or soreness of legs—pulse 100, less excited.

29th. Some remission—heat rather above natural—lips and teeth dry—cough—breathing hurried—bowels open—considerable fever all night.

6 P. M. Skin rather hot—teeth fuliginous—feels weak—tongue brown, dry, and cracked in centre—pulse pretty good.

30th. 6 A. M. Fever much abated—slept well. 9 o'clock.—Tongue same—skin hot—bowels moved—eyes little injected—thirsty—tremor of hands and legs—knit eyebrows—pulse 120 and rapid.

12½ P. M. Less hot, heat 102. Prescribed cold flaxseed mucilage to abdomen; cold to head; continue pills and neutral mixture. 3½ P. M. Skin hot and dry—tongue moist. Ordered leeches to epigastrium. 10 o'clock.—Tongue more moist—fever less.

31st. Tongue disposed to clean from edges, and moist—heat less—slept well—bowels open. Prescribed barley and tamarind water; cold to head, arms, and abdomen to be continued; cold injections; thin gruel.

P. M. Tongue cleaning—edges moist and red—skin hot and dry—in evening, fever abated. Prescribed cold to head, arms, and abdomen; cool mucilaginous injections; barley water acidulated.

August 1st. Fever returning—tongue dry and deep brown in centre—edges moist and tumid—skin dry and hot—eyes injected, and teeth fuliginous—small abscesses on legs—bowels open—mouth bitter. Ordered thin sago water acidulated; leeches to epigastrium and anus, and cold applications.

3½ P. M. Fever abated—skin moist—eyes not injected—no pain—teeth and lips dry—edges of tongue white and moist, centre dry and brown—pulse 100, some tension. 6 o'clock. Tongue moist, and fever abating—skin disposed to moisture—lower extremities dry.

2d. Skin cool—tongue on one edge moist, the other dry, centre dark and incrusted—pulse pretty good, full and soft. Treatment continued, and if fever continues, leeches to anus.

1 P. M. Considerable apyrexia—skin moist and natural—tongue moist and cleaning—pulse 80 and good. 7 P. M. Tongue dark in centre and incrusted, edges moist, some redness, and difficulty of protruding tongue far—pulse frequent and soft.

3d. No fever—edges of tongue moist—centre more moist and disposed to clean—pulse same—rested well.

3½ P. M. Tongue rather moist—no fever—skin natural—bowels open—not thirsty.

4th. Skin natural—tongue cleaning, moist and nearly natural colour—unable to stand—pulse 80—phlegmons on legs. Omit cold applications; ordered soup.

5th. Tongue tumid, with slight white fur—rather fullness of abdomen—skin moist and natural—no appetite—sleeps pretty well—pulse 72.

7th. Convalescent—tongue white and moist—pulse 60 in a minute. Discharged well.

Case V. *Remittent Fever—Gastro-Enteritis, ending in Chronic Colitis.*—L. Maran was admitted July 26th, into the Men's Clinical Medical Ward. Habits intemperate—frame robust. He was attacked on the 25th—had been complaining fifteen days. Had shortness of breath—no pain, but felt very ill—feeble—giddiness of head—bowels open—good appetite—rested bad—very thirsty last night. Ordered Castor oil, ℥ss.; neutral mixture, ℥ss. q h.; fomentations to legs.

3 P. M. Great tenderness of epigastrium—skin hot and burn

ing—sometimes he feels cold and chilly—pulse frequent, moderate volume, pretty good—tongue red at tip and pretty clean, but slight white fur towards the base—bowels open freely. Ordered cold to head, and cold sponging. 8 o'clock. Fever abated—breathing more easy—skin moist and warm.

27th. Tongue moist—pulse good—cough gives pain in head—soreness of breast abated—tongue very red, moist, and rather cleaning—skin rather hot—bowels open—no head-ache. ℞. Calomel gr. vj. and oil ℥ss. three hours after; cold continued.

3 P. M. Skin hot—pulse pretty good. 6 o'clock. Fever abating—tongue moist—skin rather hot.

28th. Soreness of legs—skin comfortable—bowels very open—tongue furred—pulse 100.

5 P. M. Pulse 120—no tension.

29th. Better—tongue moist, clean, and very red—bowels very open—skin rather hot—pulse small, frequent, tense. Ordered calomel, opii, ipecac. in small quantities frequently; soda powders; cold continued; omit neutral mixture.

6 P. M. Tongue cleaning—fever abated—pulse excited.

30th. No fever—skin natural—tongue clean, red, and dry in centre, edges moist—thirsty—rather dull—bowels better—pains in knees better—slept well. Treatment continued.

12 o'clock. Tongue very red—its circulation very rapid, more moist, centre dry—skin hot—breathing natural—pulse small, frequent, little tense—skin 102°—eyes injected—pulse 120, dullness.

3½ o'clock. Skin hot—tongue more dry—pulse excited. 10 o'clock. Fever abated—tongue disposed to dryness in centre, edges white.

31st. Skin dry and hot—pulse small and frequent—tongue moist, red, some fur—eyes injected, some tremor. Treatment to be continued; cold to abdomen; pills to be omitted.

Evening—considerable fever.

August 1st. Skin pretty natural—pulse 90—tongue clean, red, at tip scarlet—complains of great debility. ℞. Weak solut. sulph. quinine; omit cold applications; ordered sago for diet.

2d. Skin cool—tongue moist and cleaning—slight fresh fur—pulse regular, soft.

1½ P. M. Skin moist and natural—tongue rather dry in centre, clean at tip—pulse 85—at 7 o'clock tongue dryish.

3d. Dewy perspiration on forehead—skin moist and rather cool—tongue moist at edges, dryish in centre—bowels frequently open—stools watery. Ordered absolute diet, and to omit the mixture of sulphate of quinine.

From this period the febrile symptoms disappeared, and were replaced by a diarrhœa, the effects of chronic colitis or inflammation of the colon. It was treated for a week by Dover's powder, warm bath, and infusion of eupatorium. Profuse perspiration was induced. The diarrhœa was checked, but as soon as the sweating was discontinued, again returned. It was then determined to attack the inflammation by the direct antiphlogistic treatment. Cups were frequently applied to the abdomen, along the course of the colon; demulcent and opiate injections were employed daily, with occasional injections of solution of acetas plumbi. gr. i. to the ounce of water, together with a very restricted diet. It consisted of two soft boiled eggs and four crackers with barley water per diem, occasionally absolute diet, or barley water alone. This method soon controlled the disease; the stools became consistent and reduced to three, to two, and finally to one, in the course of the day. It was not without difficulty the diet was enlarged, each time that a little meat was allowed a relapse ensued. Ultimately on the 22d of September he was discharged well. The bowels had become quite regular, the stools natural, and he was regaining flesh. Crackers, boiled rice, with soup and boiled mutton, had been allowed him in small quantities previous to his discharge.

Case VI. *Gastro-Enteritis.*—Ann Maran, wife of L. Maran, aged forty-two, was admitted, July 26th, 1827, into the Women's Clinical Medical Ward. She had lately arrived from Ireland, by the way of St. Johns. Her fever is in its incipient stage. Skin hot and dry—pulse quick and weak—tongue moist—bowels regular—head but little affected. She took yesterday, dose of oil, and feels better from its operation. Ordered surface sponged with cold water.

28*th.* Disease more fully developed—skin very hot—pulse stronger—tongue still moist—bowels regular. ℞. Suc. Limon. ℥iss. Sub. carb. potas. q. s. ad saturand. Sac. alb. ℥ss. Aquæ pur. ℥iij. m. s. ℥ss. q. b. h. Cold ablutions to be continued.

29*th.* Bowels opened by neutral mixture—better in every respect—her thirst is still urgent. She takes acidulated barley water.

30*th.* Better—skin still a little dry—tongue clammy—pulse quickened—bowels open—fever still high, but decreasing.

31*st.* Is no better to-day—tongue moist, but red—thirst great—skin hot—hearing impaired—no pain in head—a slight pain at epigastrium. No change in the treatment.

August 1*st.* Skin and pulse natural—tongue moist—low diet continued.

2*d.* She still complains of thirst, but her other symptoms are subsiding. A pimply eruption begins to show itself upon her body.

5th. She has continued to improve gradually—costiveness obviated by ʒij. doses of magnesia, or by oil.

8th. Is completely well, but complains much of weakness. Her chicken-water was exchanged for soup. A few roasted potatoes also allowed.

Case VII. *Gastro-Enteritis*—Mary Maran, daughter of Ann Maran, aged six years, was admitted, July 26th, 1827, into the Women's Clinical Medical Ward. She presents the same symptoms as those of her mother, detailed in the foregoing case, but there is greater heat of surface and her abdomen is tumid. Pulse small, quick, and frequent. ℞. Ol. ricini, ʒii.

27th. No change of symptoms—bowels costive. ℞. Sp. Mindereri, ℥iv. Sulph. magnes. ℥ss. m. s. ʒii. q. h.

28th. Medicine purged her. She remains very much the same. Medicine continued.

29th. Fever very high—pain at epigastrium very severe—the breath hot and offensive—teeth and tongue clammy—pulse quick, frequent—is very restless and fretful. Ordered forty leeches to the epigastrium; an injection of cool mucilage; and cold to the surface, particularly to the abdomen and head.

30th. Fever still high—tongue moist—pain in the head last night—bowels open.

31st. Is sleeping—her skin and pulse nearly natural—bowels open once to-day—still complains of pain at belly.

August 1st. Fever but slight—bowels not open since yesterday morning. Ordered a dose of salts.

3d. Her fever completely subsided, but she still complains of pain in the abdomen, which is also much swollen.

6th. Had paroxysm of fever, attributed by Dr. Jackson to too full a diet, which was reduced.

10th. No return of fever—abdomen tense and distended—skin pallid—itching of nostrils. Dr. Jackson ordered the following. ℞. Fol. sennæ, ʒii. Manna opt. ℥i. Sem. chenopod. ʒss. m. Aq. Oj. s. ℥j. pr. re nat.

11th. The medicine purged her actively, was given at distant intervals. There came from her a number of worms of the species trichuris.

15th. Is well.

Case VIII. *Gastro-Enteritis.*—Caroline Maran, aged eighteen, was admitted, July 26th, 1827, into the Women's Clinical Medical Ward. She had landed from Ireland, with her parents and family, whose cases have preceded, three weeks since; was taken sick ten days ago; had lived in the suburbs of the city. She has pain in the head—dull, heavy aspect—hard, dry, cracked tongue—skin husky and hot—pulse weak and quick—breathing impeded—bowels open. She is quite deaf. Ordered eighty leeches to epigastric region; barley water acidulated to drink; warm fomentations to extremities.

27th. Pain of abdomen lessened—no better in other respects. ℞. Sp. mindereri, ℥viij. Sulph. magnes. ℥iss. m. s. ℥ss. q. b. h. Surface to be well sponged with cold water.

28th. Pulse nearly natural—a little excited—skin yet dry, though less so than yesterday—tongue improved, though clammy—bowels opened last night by enema. She seems very dull and inclined to sleep. Treatment continued, but medicine only to be given pro re nata.

29th. Is much better—pulse and skin natural—tongue is quite moist—bowels freely opened—appetite returning.

30th. Improving—allowed gruel.

31st. Convalescent—diet, chicken soup.

August 1st. Tongue a little dry—diet decreased.

2d. Free from all fever. Her skin is a little dry.

3d. She was ordered to have the surface sponged with warm water.

5th. A relapse was threatened from some imprudence in diet. A reduction of her diet reinstated her. The deafness has completely subsided. A singular eruption, consisting of red blotches, very harassing from their itching, appeared over the whole of her body. It subsided in a few days without medicine.

September 1st. She remains in the ward awaiting the discharge of her father, and her health continues robust.

Observations.—The preceding five cases occurred in the members of one family that had recently arrived via St. Johns, from Ireland. Although living in different places, yet nearly at the same time they were attacked with gastro-enteritic fever, that put on the remittent type. It resembled in its general features the fever by which the Stewarts were affected. This family affords additional evidence that the epidemic gastro-enteritis of the Irish emigrants was the result of change of climate, and a stimulating diet to which they were unaccustomed.

Lawrence Maran, the father, was treated for some days before I saw him, with saline purgatives, and which were not immediately discontinued, as in the foregoing cases. He was also under the use of calomel, ipecac. and opium, until 31st July. Symptoms of debility appearing, with declension of febrile state, solution of sulphas quinine was directed as a tonic. On the 3d of August a diarrhœa commenced, which continued with various intensity until the second week in September. The emaciation became extreme; the pulse was constantly irritable; the skin dry and harsh, except during the period when the sudorific plan of treatment was enforced; and the abdomen retracted and painful on pressure.

The treatment of diarrhœa by sudorifics often proves successful, and was resorted to in L. Maran's case with considerable confidence in its favourable result. These expectations were disappointed, and it was then resolved to trust entirely to a strict regimen, with local depletion and demulcent injections. The functions of the stomach were well performed, and the appetite was good, which occasioned some difficulty in maintaining for so long a period a diet that demanded so much self-denial. The relapses produced by an increase of diet, rendered so obvious the propriety of a severe regimen, it was submited to with cheerfulness, and a complete recovery ensued.

Case IX. *Gastro-Duodenitis.*—Mary Williams, aged forty-five, was admitted into Black Women's Medical Ward, August 17th, 1827. This patient came from a court in the Northern Liberties, whence a few days since three patients had been received into the ward with typhoid fever. They inhabited the same house, which is described as being very filthy, and having a cellar or hole which is very offensive. She was attended by a Dispensary physician, and had taken an emetic which operated very violently. The symptoms on admission are—countenance exhibits a striking expression of indiscribable agony and distress—eyes wild, projecting and rolling rapidly, as if in quest of relief—her mouth open and gasping—tosses her head and hands in every direction—acute pain at epigastric region—tongue dry, cracked, black in the centre—pulse scarcely perceptible—skin cold—she frequently screams aloud—cannot speak—utters inarticulate sounds—has frequent retchings—attempts to bite those around—bites her bed-clothes—had bit the physician who attended her in the arm. Has repeated shudderings, with convulsive movements of the muscles of neck and face; when asked if thirsty nodded assent; when seat of pain and distress was asked her, she pointed to her epigastrium.

Dr. Jackson was present—gave her a few mouthfuls of water, which were immediately rejected, apparently by the action of the stomach alone. Some pieces of ice were put into her mouth, which were crushed and swallowed with voracity. She asks for more by signs, and seems to find relief, chewing them with avidity. Her system appeared too much exhausted to admit of depletion. Ordered iced acidulated gum water, with pounded ice given in spoonfuls every five or ten minutes. Warm fomentations to limbs. Mucilage injections to open bowels; flying sinapisms.

Reaction occurred in about two hoars, when twenty-one leeches were applied to epigastrium. Her pulse rose on the depletion, and from the ice drinks. Skin is warm.

August 18*th*. Seems better this morning—slept some during the night—thirst incessant—her pulse a little better—skin again cold—bowels open last night—did not vomit any—tongue less dry and dark—complains of pain in her head—is now capable of articulating some words. Treatment continued, with warm frictions to the skin.

Night. The symptoms aggravated—some difficulty of respiration, with considerable rigidity of the muscles of the neck and arms. The pain extorts the most horrid screams. Ordered cups to the back of the head. She seems to be relieved very much. From some obstructions in rectum, injections cannot be given.

19*th*. Slept well last night—seems better this morning—pulse and skin natural—tongue very dry and dark—pain in the stomach, but not in the head—rigidity of muscles continues.

Night. Is calmly sleeping—no expression of pain—pulse and skin natural—thirst has not been so urgent. She appears in every respect better, and, to the surprise of all who first saw her, there is some promise of recovery; converses with ease, and gave the history of her illness.

20*th*. Decidedly better—pulse and skin natural—tongue more moist and clean—has no pain at the epigastric region—says she is hungry, and begs for food. Treatment continued. 11 A. M. Suddenly became worse—agony returned—pulse much accelerated—pain at epigastrium. These symptoms continue to increase. Ordered fifty leeches to epigastrium, and twenty to back of head.

5 P. M. She seems for a short time relieved.

Night. Very bad, wild, and frantic—tears and bites every thing about her—pulse becoming more quick and thready. She slept none during the night—continuing violent all the night.

21*st*. At day-light this morning seems a little better, but no hopes of recovery are excited—pulse very much irritated. She frequently screams and asks for something to eat. Ordered blister to back of head and neck. Continues to grow worse during the day.

22*d*. To-day she has spit much blood. The attendants think that it comes from the stomach—her mind perfectly irrational—eyes sunk and dull—pulse languishes—she is disposed to be violent, and coercion is necessary to restrain her actions.

23*d.* Continues to sink, and died during the night.

Post mortem examination, six hours after death. Robust form, no emaciation, thick layer of fat beneath the skin. Heart healthy in every respect; firm coagula in ventricles and auricles. Old pleuritic adhesions of left pleura; left lung natural; right cavity presented the pleura and lung perfectly natural. The liver adhered to the diaphragm and duodenum by old adhesions. Stomach, pancreas and duodenum, amalgamated from former disease. The stomach was contracted, and contained a bloody mucus. Its mucous coat intensely inflamed, particularly along the summits of the rugæ; its colour very bright; vessels injected in portions, with masses of blood effused into its substance. Duodenum red pointed injection. Liver natural. The large and small intestines healthy, containing a considerable portion of healthy fæces. The right ovarium converted into a sac, containing about two gills of clear serous fluid. It was adhering to uterus and rectum, and had occasioned the obstacle to the passage of the injections. About the mouth of the uterus, a bloody mucus.

Observations.—This case, recorded by R. L. Fearn, manifested the symptoms of gastritis in the highest degree. I have never witnessed the physical expression of an agony so intense as was displayed by this patient. Her distress was referred to the stomach. Consciousness was unimpaired when admitted, but all her attention was absorbed by the violence of her sufferings. I was on a visit to the house at the time of her admission, late in the afternoon. Notwithstanding the appearance of extreme prostration—the coldness of the skin, the thread-like, scarcely perceptible pulse—the effects of the gastric agony, not of debility—I immediately instituted the debilitating or antiphlogistic treatment. I gave her a few spoonfuls of water, that had been standing in the ward, which was rejected the instant it touched the surface of the stomach. Ice was then ordered and given in small pieces, and gum-water, acidulated slightly with lemon juice, mixed with pounded ice, was given by table-spoonfuls every five minutes. The retching was instantly allayed. I remained to watch its effects, and in an hour's time a considerable change had occurred; the pulse acquired more volume and force, and the extreme agony was somewhat abated. Having thus felt my way, I directed leeches to the epigastrium, with flying sinapisms to the extremities. Before I left the house, about eight in the evening, the action of the skin had been established, its temperature was increased, and the pulse well developed; she was disposed to sleep.

The improvement was so great under the plan of treatment, that for a short time, some expectations of a recovery were excited. The sudden change on the 20th for the worse, I was disposed to attribute to some food having been taken by her. She was very clamorous for something to eat, and the ward was so crowded the nurse could not keep a constant watch over all the patients.

Williams in the commencement of her treatment before she entered the infirmary had an emetic given to her. The violence of the gastric inflammation may fairly be attributed to this cause. The other patients from the same house, had also been treated in a similar manner. They each described its effects as most distressing to them. They manifested also gastric irritation, but which was subdued by a treatment similar to that pursued with Williams.

Case X. *Chronic Gastritis.*—Dorry Derric, aged thirty-five, admitted into the Women's Clinical Medical Ward, September 11th, 1827. Habits are intemperate; had fever eight or ten days previous to admission; treatment during this time unknown; complains of pain in epigastrium—incessant nausea and frequent vomitings of green matter—pain in the head—skin hot and dry—tongue furred and dry, red around the edges—pulse contracted and wiry—bowels too open. Ordered flaxseed injection with laudanum; hot pediluvium; cold water to stomach and head; barley water for drink.

12*th.* Bowels opened five times last night—continues to vomit a greenish matter. Ordered leeches to epigastrium.

13*th.* The vomiting ceased immediately after the leeching and fever abated—tongue moist and cleaning—skin moist—pulse full, round, and natural—has no fever—great change for the better, bowels opened but once—has slight hiccough.

14*th.* Tongue moist—skin good—complains of pain in the head—soreness at epigastrium—pulse continues good.

15*th.* Has head-ache—bowels not moved yesterday—no fever this morning.

16*th.* Was restless last night—still has head-ache—bowels opened yesterday.

17*th.* Free from fever—skin, tongue, and pulse are good. Allowed thin chicken soup.

18*th.* Great change for the worse—tongue has become dry—pulse irritated—has soreness over the stomach. Chicken soup discontinued; put on low diet. Ordered leeches to epigastrium.

19*th.* Pain relieved by leeches—complains of great weakness—unable to raise herself in bed—tongue dry in middle, moist around the edges—pulse small and slightly irritated—refuses barley water—drink water and milk, equal parts.

20*th.* Very prostrate—tongue somewhat dry in the middle—rest less and delirious at night—pulse full and compressible, and slightly irritated—skin moist—on the whole she seems better than yesterday—a slight twitching observable in her arms—bowels opened yesterday. Evening. Has subsultus tendinum. Ordered thirty leeches behind each ear; blister to back of neck; tongue still disposed to become dry—skin dry—takes weak wine and water—Frictions of sp. terebinth. to lower extremities; cold applications to head. Is delirious.

21st. Feels better—skin moist—tongue tolerably moist—no delirium, but still has subsultus tendinum—pulse weaker. Treatment continued. Has strangury from the blister—symptoms of subsultus tendinum less—appears improved.

22d. Has no fever to-day—tongue somewhat dry—pulse weak and irritated—is very weak. Frictions of sp. tereb. discontinued.

23d. Slept tolerably well—tongue red, clean and moist—has no fever—pulse better, less irritated—appetite good.

24th. Light diet—rested well—tongue clean and red—bowels opened last night by an injection—pulse fuller, slow and soft—some slight irritation of stomach.

25th. Pulse soft, round, and regular—countenance better—appetite good—tongue moist and red—skin dry and harsh. Ordered vol. liniment to rub abdomen.

25th. No great alteration—feet cold. Ordered hot bricks to feet.

26th. Tongue clean and clammy—pulse soft and good—sleeps during day, and restless at night—takes chicken soup.

27th. Pulse soft and rather frequent—has no fever.

28th and 29th. Convalescent. ℞. Extr. opii. gr. j.—calomel, gr. ij. M. ft. pil.—take at night.

October 1st. No alteration.

2d. Great change. It seems by some neglect that the pill ordered for 28th was given by the nurse every day, since it was first prescribed—skin has a pale straw-colour—disposition to sleep—skin cold, moist, and cadaverous—pulse very weak—great rigidity of muscles—refuses chicken soup—bowels opened yesterday—very prostrate—ordered ℞. Carb. ammon. ʒij.—mucilage, ℥ij.—sac. alb. ℥j.—aq. menth. ℥ij.—aq. cinnam. ℥iij. M. ℥ss. q. h. gtt. v. of acet. opii. to each dose; head to be shaved, and mustard plaster applied over it; sinapisms to inside of thighs, afterwards blisters to the thighs and arms; brandy toddy freely. She gradually sank and died in the evening.

Dissection twelve hours after death.—Body emaciated one-half; of light straw-colour—no effusion in cellular tissue.

Head. Arachnoid membrane on cerebral surface opal colour—a slight serous effusion between it and pia mater—ventricles contained ℥ss. serous fluid—brain natural.

Thorax. The viscera of this cavity appeared perfectly natural—the heart contained very little blood, which was thin and watery, without coagula.

Abdomen. Peritoneum healthy, no effusion—liver natural—spleen distended—stomach large, very much relaxed or flaccid, no external marks—mucous membrane, at cardiac extremity of a dirt-brown colour, very thin, no appearance of villi, and nearly diffluent. I have frequently seen the mucus secreted of more tenacity—it yielded to the nail or handle of scalpel with facility—in pyloric extremity it was firmer, but less than half its usual thickness—had red pointed injection—duodenum dirty-ash colour—follicles enlarged—intestines natural.—Case recorded by Mr. Kennedy.

Observations.—Derric, on admission, was suffering under gastric irritation of a high degree, evidenced by the incessant nausea, retching, vomiting, pain of epigastrium, thirst, and fever. These symptoms speedily yielded to the application of leeches to the epigastric region. The irritation had, however, been irradiated on the cerebral membranes; hence the subsultus tendinum.

The absence of all febrile symptoms for several days, led to a belief that a recovery would ensue. It was soon observed, notwithstanding the apparent convalescence, that the food she consumed did not nourish her. Her skin gradually became bombycinous or of a waxy appearance, and husky to the feel. She became listless and indifferent, with light stupor.

The dissection exhibited the partial disorganization or death of the mucous membrane of the stomach, and slight affection of arachnoid membrane. It does not appear to me that her death is to be attributed to this last cause, but rather to the condition of the mucous membrane of the stomach. Healthy, natural digestion could not be performed; assimilation was suspended; the blood, from the absence of fibrin, and impoverishment of its globules, had its stimulant powers impaired, and the actions of the organs in consequence irreparably prostrated. Acute inflammation supervened most probably to chronic phlogosis of the gastric mucous membrane, which had existed from her intemperate habits. When this event takes place, destruction of the organ in which it occurs very easily is produced. Hence arises the frequency of the disorganizing and fatal effects of inflammation in the intemperate, and the difficulty of treating their acute diseases.

CASE XI. *Intermittent Fever—Intermittent Gastro-Meningitis.*—George Lee, aged seventeen years, was admitted into the Men's Medical Ward, September 6th. One week before was taken with pain in the head and back. Three days after had a severe chill followed by fever, both of which came on regularly every day about 9½ o'clock. Habits temperate.

Symptoms on admission; face flushed—eyes rolling, very red and watery—tongue much furred and dry, fissured transversely—pulse frequent and irritated—skin very hot, and parched—little or no tenderness on pressure at epigastrium—some stupor—ordered cups to back of the neck—cold cloths to the forehead—hot pediluvium, and cold enemata—barley water acidulated, allowed as drink. ℞. Tinct. opii. gtt. xxx. when chill is expected to-morrow.

9th. Paroxysm to-day—fever less intense—bowels well opened—less distress of head—thirst excessive—extremities cold and livid—circulation of skin languid—pulse irritated. Ordered hot blankets to lower extremities; cups to epigastrium, and cold to head.

10th. Paroxysm this morning—skin hot—pulse quick, small, irritated—tongue dry and dark, thickly furred—sordes on teeth—lips dry—eyes less watery and red. Ordered cups to be repeated; cold water to be allowed ad libitum; diet absolute.

11th. Much better—free from fever—skin cool—tongue cleaning on edges—white streak of loose fur on each side—eyes becoming jaundiced—skin yellowish. ℞. Oil to regulate bowels.

13th. Has been improving for several days—had a slight chill to day, which was checked by laudanum—is now free from fever—tongue cleaning rapidly, but rather red—papillæ elevated—skin cool and perspirable—eyes still yellow—bowels open. Ordered enemata pro re nata; fomentations to abdomen.

15th. A chill succeeded by fever to-day, with general distress—is very fretful—much thirst—respiration rather laborious—when the fever goes off, appears quite lively, and walks about. ℞. Hot pediluvium, with mustard; cold fomentations to abdomen, and cold enemata.

16th. Had the chill as usual this morning—has now some fever, but less than usual. Treatment continued.

17th. Some tenderness on pressing epigastrium—otherwise as usual. Ordered cups to epigastrium.

19th. Chill—has now fever—pulse full and rather tense. V. S. ℥vi. Treatment continued.

20th. Every day the chill and fever are delayed to a later hour. Diet restricted.

25th. Chill lessened in duration—has no fever. Diet, soup and milk. ℞. Sulph. quinine, gr. xij. Sulph. acid. q. s. Aq. puræ, ℥vj. M. ℥ss. q. b. h.

30th. Convalescent. No chill or fever. Diet increased—soup, milk, sago, &c.

Observations.—The intermittent type was assumed in this case, yet the organic lesions were evidently high gastric irritation, which, on his admission, had been irradiated to the cerebral meninges.

In its essential characters, the disease of Lee was similar to remittent fever; and from the jaundiced state of the eyes and skin, that appeared on the 11th, the irritation was communicated to the biliary ducts, giving it a disposition towards bilious fever, as it is termed. The type the irritations assumed, was not attended to in the commencement. The treatment was directed to the organs affected, and the condition in which they existed when the organic irritations were controlled, and the febrile paroxysms subdued, the sulphas quinæ was resorted to, and secured the patient from a recurrence of the paroxysms.

Case XII. *Typhus Fever—Gastro-Meningitis.*—William Lynch, aged forty-five, pedlar, was admitted into the Men's Medical Ward, Sept. 26th. In August had attack of fever while peddling along the Schuylkill—became better after two weeks confinement—attempted to return home, and was compelled to lay by at a tavern on Lancaster road—was sick six or eight days, and was attended by a physician of the neighbourhood. Got somewhat better and came on to the city. Becoming worse, entered the infirmary. Has lost one eye from an injury; the other has been much affected. Is a free drinker. Symptoms on admission; much general debility—pulse small and feeble—skin dry and parched—eye much injected and watery—some stupor—answers questions reluctantly—tongue very tremulous, white, and furred, but broad and moist—bowels open. ℞. Ammoniated julep, ℥ss. q. h. h. Wine whey in intervals.

27th. Sinking—debility greater—pulse weak and frequent—stupor increased. Blister to nape of neck.

Night. Eye very red and injected—much head-ache. Cold water to head; sinapisms to extremities.

28th. No better—pulse rather fuller. Ordered brandy punch; porter and water; soup and sago as diet. Other treatment continued.

Night. Cerebral symptoms increasing—comatose—seldom speaks, unless spoken to—voice very indistinct—skin rather moist. Blister to head.

29th. Has retention of urine—otherwise same as before. ℞. Sp nit. dulc. ʒj. in flaxseed tea, q. ½h. Carb. ammon. discontinued, and punch.

30th. Leeches applied behind the ears—slight change for the better —speaks more willingly—opens his eyes—pulse risen somewhat—skin dry and harsh. ℞. Calomel, gr. ss.—ipecac. gr. ¼—opii, gr. ⅛. M. ft. pil. q. b. h.; wine whey continued.

October 2d. Perspiring freely—feels better—pulse soft, full, and regular—bowels in good condition—tongue moist and cleaning—eyes less red. ℞. Cort. cinchon. ℥j.—Serpentaria, ℥ss. M.—one pint of boiling water—wine-glassful, q. b. h.

3d. Improving. Says he is quite another man—pulse soft, full and regular—perspires rather profusely—coming on always after taking wine whey, which is now used sparingly. Treatment continued.

4th. Doing well—tongue cleaning rapidly, moist, soft, and elastic to the touch—gums slightly touched—skin moist and soft—eye clearer. Milk and gruel in the morning, and soup during the day. Uses gargle of sage tea, borax, and honey, p. r. n.

5th. Quite cheerful—gums quite sore—discharge from them increased. Gargle of solut. borax and myrrh.

7th. Doing well—diet increased.

23d. Convalescent.

Observations.—Lynch has been an invalid for some years, and was, on his admission, in what might be considered the last period of the fever, with which he had been attacked on the Schuylkill. The symptoms that presented themselves at that time were of opposite character, and demanded a contradictory treatment. The central organ and the forces of the circulation were in a state of debility and apparently failing. Stimuli of an active nature were required to maintain their powers—at the same time symptoms indicative of meningeal inflammation were present. On the 29th, when the vigour of the circulation had been restored, but with increase of the cerebral symptoms, twelve leeches were applied behind each ear, and all the stimulants except wine whey were withdrawn—an immediate amendment ensued. The prescription of the 30th was ordered with a view to excite perspiration. This effect was induced, and, subsequently, a slight ptyalism was brought on. No gastric distress was manifested by Lynch.

Case XIII.—*Gastro-Entero-Cerebro Colitis.*—Mary Ann Ketler, aged ten years, was admitted into the Women's Medical Clinical Ward, Aug. 22d, 1827. Person delicate—temperament nervoso-sanguine—

complexion fair—hair light colour—eyes blue—has been sick three or four weeks. The physician under whose care she had been, gave the following account of her disease and treatment. The fever, at first intermittent, became continued. An emetic, followed by several active purgatives was prescribed. A cerebral affection supervened, attended with derangement of mind, entire loss of sight and hearing, great stiffness of the cervical muscles, &c. To meet these symptoms, a blister was applied to the head, and repeated. The fever subsided, and a prostration supervened. The sulphate of quinine, carb. ammon. and wine were given, and continued for four or five days, when fever recurred. Since which she has been using pulv. Doveri and acetat. opii, gtt. ij. q. b. h. to quiet irritation.

Symptoms on admission.—Emaciation considerable—delirium incessant—screams violently, from pain—pulse irritated, frequent—skin hot—tongue pointed, red on edges, white fur on surface, dry—abdomen depressed, renitent, painful, when pressed, in every part, especially epigastrium and iliac regions—face flushed, particularly the cheeks. Latterly gangrenous spots and petechiæ have appeared. She also has a large sloughing ulcer over the sacrum. When not screaming, lies moaning—has colliquative diarrhœa. Ordered injections of laudanum and mucilage, pro re nata, and fomentations to abdomen; barley water, acidulated, for drink, and arrow-root mucilage for diet.

23*d.* Delirious all night—talking and screaming incessantly. The patients in the ward were so much disturbed by her, she was removed to a separate room. The diarrhœa appeared checked by the injections. Bowels opened this morning after an injection—stool dark and thick—symptoms as yesterday—more heat of surface. Ordered twenty leeches to epigastrium and twenty to back of head; cloths dipped in cold water to head and epigastrium; mucilaginous injections, cold. A circular perforated pad to sore on sacrum.

24*th.* Raved last night till one A. M.—much thirst during night—had a dark stool this morning—tongue rather cleaning—lips and gums very dry—pulse very small, quick, and frequent—low muttering delirium, with much peevishness—skin cold and damp—small blue spots over body. Ordered warmth by fomentations and bricks. Afternoon.—Reaction taking place—skin of natural temperature—more quiet—pulse less irritated. Night.—Some exacerbation of fever, but she is more rational—has had a copious dark stool. Ordered twenty leeches to epigastrium.

25*th.* Seems better this morning—passed a tolerably good night—

skin natural—tongue cleaning—bowels open—her pulse still irritated and corded. Treatment continued. Night.—Much better—reposes quietly, and is rational—no fever—pulse the same.

26*th.* Rested badly last of night—better this morning, quite rational—the nurse was induced by her entreaties to give her a small piece of light bread to eat—she complains much of hunger—tenderness at epigastrium lessened—bowels open, stools not so dark—the pupil of eye has become natural. Treatment continued. Night.—Pulse improved—stools nearly natural—allowed a few spoonfuls of sago.

27*th.* Very restless, fretful, impatient, was delirious in the night—pupil again dilated—pain in head and epigastrium—tongue and pulse improving—sore on sacrum looks clean and healing under the bread and milk poultice—petechia have disappeared—her shoulder pains her very much—the muscles of abdomen very tense, she lies with her legs drawn up to relax the abdominal pressure—has no great thirst. Ordered twenty leeches along longitudinal sinus. Night. Warm fomentations to abdomen—is calmly sleeping—bowels not open to-day—drinks chicken water.

28*th.* Rested badly—bowels open last night—pulse small and tense—pupil still dilated—does not complain of her head—tongue rather dry—sores have healthy appearance. Ordered new milk and water. Night Has passed a bad day—frets much, and complains of her head—gastric uneasiness decreased—bowels not opened. ℞. Calomel, grs. iv.—ol. ricini. ʒij.

29*th.* Had a better night—sleeps calmly this morning—bowels open—stools natural—pulse improved—likes her milk and water.

30*th.* Rested well—pulse and skin favourable—still moans and complains of pain in her abdomen. Ordered emollient injections through the day, and an anodyne injection at night; treatment and diet as usual. Night.—Pretty quiet. A small portion of bread and butter allowed, as her incessant craving for it seemed to irritate her—bowels natural.

31*st.* Rested well—legs drawn up to relieve tension of abdomen—pupil still dilated—tongue and pulse good—eats with appetite—stools natural in colour, but offensive. Ordered blisters to back of ears. Night.—Blisters drew well—pupils of eye natural—has ceased to moan—doing very well.

September 1*st.* Rested well—pupil again dilated. Night.—No change in treatment—very fretful during afternoon—more calm at night, and disposed to sleep.

2*d.* Slept but little—is rational, but peevish—her stool this morning contained a portion of blood—pupil less expanded—tongue has become moist, clean, and natural—pulse natural—appetite good. Night.—Another stool, but no blood with it—her fever high—the bread, butter, and milk are stopped. Ordered lemonade.

3d. Symptoms very favourable—pulse, skin and pupil of eye natural—diet allowed again. Afternoon.—She was this day removed back again to the clinical ward—her pulse became excited, and considerable fever was manifested—diet again stopped—body sponged with cool water—fever abated towards night.

4th. Not so well to-day—bowels too loose—stools are dark and offensive. Ordered twelve leeches to the iliac region, and six to margin of anus. ℞. ℨi. of oil. Opiate injections. Seems a little better.

5th. Better this morning—rested well—tongue, pulse, and pupil natural—had a slimy passage during the night—takes milk for diet. Ordered cold injections of mucilage with laudanum.

6th. Rested badly—she seems under the effect of the opiates—has had frequent bloody and mucous stools. Pulse failing. Ordered weak wine whey. Opiate injection continued.

10th. After the sixth instant she gradually declined—suffered severe pain—abdomen excessively tender—her pulse became weak, irritated, frequent, and quick—her skin hot—colliquative diarrhœa with bloody discharges—frequent vomitings. This day she died. —Case recorded by Mr. Hall.

Abdomen only examined.—Autopsis eight hours after death—much emaciation—abdomen retracted—superficial veins very visible. Peritoneum healthy in every portion. Stomach—mucous membrane of natural consistency—colour white—contained a large quantity of fluid—her drink. Duodenum and jejunum presented a healthy structure and aspect. Liver and kidneys of natural appearance. The ilium, as it approached the colon, was inflamed, and exhibited numerous laminæ of various sizes, mostly oval-shaped, elevated a line above the surface, many of them ulcerated, especially in the proximity of the cœcum; edges of the ulcers ragged; contents of ilium were a blackish mucus. The mucous coat of colon and rectum were covered over with a bloody mucus, the sanguine appearance increased in descending; in the ascending colon and arch the mucous tissue not red, but of deep red in the lower portion and rectum. When washed it was found to be riddled like a sieve with perforations, and extensively pitted. The perforations penetrated only through the mucous tunic, the others were unaffected.

Observations.—The symptoms manifested by this patient on admission, and the duration of the disease, which had constantly progressed in its unfavourable tendency, precluded almost every expectation of affording even a relief to her sufferings, much less a recovery. From the intensity of the cerebral symptoms, I apprehended, at first, the immediate danger to be disorganization of the cerebral structure. It is to be observed that no spasmodic contractions, no rigidity of the muscles, the concomitants of meningeal inflammation at the base of the brain existed; neither was the adnata injected, nor the eye affected in its movements—rolling in its socket, and turned upwards, as occurs from the same cause. No tendency to stupor was at any time observable; on the contrary, the mental faculties were too active—wakefulness was a troublesome symptom—delirium was acute, accompanied with talkativeness. From these symptoms, I concluded the sympathetic irritation, was not developed on the meninges, so much as the anterior lobes of the brain, or at least, if they were involved, it was only the arachnoid and pia mater, covering the superior portion of the anterior lobes of the cerebrum.

All apprehensions from this source were soon dissipated from the mitigation so speedily induced in the cerebral symptoms, by the discontinuance of the stimulants and narcotics, and the adoption of the physiological treatment directed to the organs affected. As the cerebral disorders moderated, it became evident, that danger equally formidable, though more remote, threatened our patient from the phlogosis existing in the alimentary canal. As far as the stomach was concerned, our fears were soon allayed. The tongue became moist, clean, and lost its pointed shape and scarlet hue. The appetite returned, was even sharp, and digestion good. The renitent state of the abdomen, which was sunk in and depressed; its extreme sensitiveness to pressure in the iliac regions, and track of the colon; the diarrhœa that existed on admission, and which continued to recur at intervals; the legs drawn up to relieve the abdominal contents from muscular pressure; the progressive emaciation notwithstanding the restored state of the digestive functions; the persistance of an irritated pulse, and a husky skin, indicated, too plainly to be misunderstood, an extensive and aggravated intestinal inflammation. (entero-colitis.)

In observing on this case to the class, I remarked in the commencement of the treatment, that inflammations of so many organs, of such extent and continuance, could not be eradicated at once, as in recent cases, by active depletion—the general forces of the patient requiring to be managed—but that the different active phlegmasiæ, then existing, were to be reduced, by local and appropriate means, below the point of immediate disorganization: that they were to be converted into chronic inflammation, which might be removed by regimen and revulsives; and that such would be the object I proposed in the treatment.

For a few days the melioration of the condition of the patient, almost led to a hope, that such a result would be accomplished—it was soon abandoned, and instructed by frequent autopsical researches, when similar abdominal symptoms have existed, I announced ulceration of the ilium and colon to have taken place.

In this case, displaying a formidable train of morbid phenomena, the decided, unequivocal impressions made by the physiological system of treatment, are too obvious to be denied. This patient, under a different system, had proceeded from bad to worse; and the first appearance of amendment or check to any of the symptoms, in a period of three weeks, was immediately consequent on the institution of local and general debilitants of irritative actions. They are too well connected to be considered as mere accidental concomitants, and have the connexion of cause and effect. Had the same plan been adopted in the commencement of the disease, when, in so many instances, it is alone susceptible of cure, a very different fate, it is fair to presume, would have awaited this unfortunate little girl.

A circumstance in this case requires to be noticed. While treated by stimulants and Dover's powder, petechiæ appeared on the surface, and sloughing on the sacrum. These are supposed to be signs of debility and a putrid tendency, and to require tonics and stimulants. But soon after the antiphlogistic system, the local depletion, demulcents, regimen, &c. was commenced, the petechiæ disappeared, the sloughing ceased, the ulceration assumed a healthy aspect and began to heal.

The brain was not examined, in consequence of a difficulty having been made to open the body. I was determined to verify the condition of the abdominal viscera, and removed them entire. I never before met with the kind of ulcers that existed in this colon. There were many thousands, none larger than small shot-holes, and appeared to be formed by the destruction of the mucous follicles that are disseminated in the colon. In the ileum where the follicles are agglomerated together, they formed, as they usually do when enlarged by inflammation, circumscribed laminæ elevated but flattened on the surface. Those near the ileo-cœcal valve were ulcerated; ascending up the ileum, the ulcerations disappeared, and, finally, the lamina. The structure of the stomach corresponded with the symptoms that announced its restoration to its healthy functions; it was perfectly natural.

Case XIV. *Gastro-Entero Colitis.*—Christian Deelar or Teilher, aged thirty-two, a German, fair complexion, light hair and eyes; a labourer in a brick-yard; admitted into Men's Medical Ward, August 31st, 1827. He has not been in good health for some time past, but was confined to bed only four days previous to his entrance into the infirmary.

Symptoms on admission, were fever—head-ache—flushed face—short and laboured respiration—tongue foul—bad taste and clamminess of mouth—thirst—pain in abdomen—diarrhœa.

Treatment.—V. S. ℥vi.; cold applications to head; cold mucilaginous injections; barley water acidulated, for drink.

September 1st. Fever—pulse active—respiration hurried—abdomen sore to pressure—bowels very loose. Treatment.—Cups to abdomen—V. S. ℥vi.—fomentations to abdomen; cold applications to head

2d. Bowels continued loose in the night; are in better order to-day—pulse frequent and irritated—respiration short and hurried—pain in head.

Treatment.—Cups to head; continue injections and cold applications.

3d. Pulse more excited—bowels again very loose.

Treatment.—Thirty leeches to epigastrium, ten to margin of anus; fomentations to abdomen and cold injections continued; feels much better after leeching.

4th. Apyrexia—appetite, asks for food—diarrhœa checked—complains of dimness of sight and dizziness of head.

5th. Was somewhat delirious in the night—no fever—asks for food and allowed some gruel—was easy, and appeared doing well during the day—respiration continued short.

10 P. M. Was suddenly seized with violent pain in lower part of the abdomen; his outcries disturbed the whole ward. He attributed his suffering to suppression of urine. Anodyne injection and warm fomentations to abdomen. An attempt to pass a catheter failed; he was put into a warm bath, after which the instrument passed with facility. Not more than a gill of urine was obtained. He felt somewhat relieved. and near midnight got some sleep.

6th. Pain returned with great severity early this morning, and increased rapidly. At 8 he is quite prostrated—extremities cold—pulse barely perceptible—respiration laborious—stimulants external and internal were freely administered, but without effect—he expired at 9 o'clock. Case recorded by Mr. Betner.

Autopsy.—Thorax and abdomen examined. The pleuræ, lungs, bronchiæ, and heart, exhibited a perfectly natural condition. In abdomen the peritoneum was extensively inflamed, which was most intense in the lower portion; that spread over the stomach, liver, and spleen was not affected. The convolutions of the intestines, where they were in contact with the parietes, so that the two peritoneal surfaces were in apposition, presented a high degree of inflammation. In the cavity was a yellow fluid, in which was intermixed fæcal matter. The liver perfectly healthy; the mucous coat of stomach natural thickness and consistency, of a dull white colour; duodenum similar, and jejunum also: they contained a yellowish, thick, semi-fluid matter, the colour derived from the bile; descending along the track of the small intestines, about their middle, capillary, arborescent injection began to appear, and the contents were a thin and bloody mucus. Further on laminæ were met with; they were elevated above the surface, of an oval shape, granular to the feel, of a pink colour, and offered considerable resistance to the scalpel. Proceeding on, these laminæ or plates were more numerous, and of larger size; some were an inch and an half to two inches in length, and from a fourth to half an inch in width. The mucous tunic was of deep port red, and mucus contained in this part highly sanguineous. Six inches above the ileo-cœcal valve, the laminæ had ulcerated—some were in a gangrenous state, soft and black, with ragged edges. One had perforated the intestine completely. From this to the cœcum, all the laminæ were in a similar state, and three other perforations had taken place. The ileo-cœcal valve, with the whole mucous coat above it, was black, disorganized, in fact putrulinous. The colon through its whole course was intensely inflamed and exceedingly rugged and thickened. It contained bloody mucus. The cœcum, part of ascending colon, the lower portion of descending colon, and rectum, were covered over with ulcerations of various sizes, but none of them gangrenous.

Observations.—Teilher did not give an explicit account of his previous condition, except that his health had not been good for some time anterior to his present confinement to bed. It is most probable from the extensive morbid condition of the colon and ilium, he had been affected with chronic ilio-colitis, on which supervened acute inflammation.

The general symptoms on admission were those that usually characterise remittent fever; but on the subsidence of the gastric irritation, and the return of appetite, the febrile symptoms disappeared, and an apparent amendment ensued. The same circumstance was noticed in the preceding case, (Mary Ann Ketler,) and I have repeatedly observed it in similar cases. It arises from the less active sympathy between the heart and the mucous tunic of the small and large intestines. than between the heart and the mucous tunic of the stomach. As soon as the gastric irritation is controlled, the sympathetic irritation of the heart ceases, and *the symptom called fever*, disappears from the train of morbid phenomena. Notwithstanding the absence of this symptom, disorganizing inflammation may continue in a large extent of the ilium and colon, and the condition of the patient is not the less critical, though apparently improved. These facts give support to the principle of Broussais, that the symptom of fever does not occur in disease, without the previous development of irritation on the gastric mucous membrane.

The perforation of the bowels in this case, was the result of the ulcerative process and gangrene combined. The escape of the intestinal contents into the peritoneal sac produced its inflammation, that became the immediate cause of death. Perforation of the intestines ensues sometimes in a totally different manner; it is independent of ulceration or gangrene, but is a softening of the structure. It is a vice of nutrition, in which the atomic or molecular forces that govern the combination of the animal elements, appear to cease or be perverted, and a discontinuity of parts succeed. This kind of perforation is often seen in the stomach, and is more frequent in children than adults.

CASE XV. *Cerebro-Hepatic Congestion.*—John Wilson or Nelson, admitted into the Men's Medical Clinical Ward, October 1st, 1827, aged sixteen years, light complexion and hair, addicted to intemperate use of ardent liquors.

This patient was brought to the house in a wagon, by an innkeeper residing on the Schuylkill, who mentioned that two days previous he had found this lad early in the morning lying on the steps, in front of the house, where he had lain all night. Finding him to continue very ill, he had brought him into the infirmary.

From the patient the information collected was, that he had been complaining and unwell for two weeks, that he had come down the Schuylkill from Mount Carbon in a coal boat, in which he was exposed night and day to the weather, and that he was in the habit of drinking from two to three pints of whiskey per diem.

Symptoms at the time of admission were complete torpor of mind and body—skin pale and cold—bluish hue around mouth and neck, from the stagnation of the circulation and settling of the blood—respiration feeble—pulse barely perceptible—pupil of the eye contracted to a small point. The most powerful and diffusible stimulation internal and external was immediately put in requisition, as hot brandy and carbon. ammon.; warm bricks to different parts of the body; frictions with hot ol. terebinth.; sinapisms, &c.

In the course of three or four hours reaction was awakened—the pulse rose—the skin became warmer, and he could be roused from his stupour for a short period—when the preceding statement was obtained from him—head was shaved, and four cups applied, followed by a sinapism—the reaction became considerable during the day, but in the night he suddenly sunk and expired.

Examination next day, twelve hours after death.—Body not emaciated, skin of pale straw-colour—no discoloration from settling of blood—face bloated—no rigidity of muscles—limbs round, well formed—chest large.

Head.—Vessels of scalp turgid with blood, from which half a pint escaped and was collected. When the skull-cap and dura mater were removed, the brain appeared through the arachnoid of purple ash-colour. The arachnoid was of a faint opal white—no effusion of serous fluid existed in the arachnoid or beneath it—the vessels of the pia mater loaded with blood—the exterior of the cortical substance was of a *deep purple colour*, which seen through the arachnoid had appeared of an ash tinge. The interior of the cortical substance was of a hue approaching a *dark mahogany.* An alteration of the colour was observable after exposure to the air for a short time—it assumed a lighter tinge, and was more bordering on red. This effect was doubtless produced by the action of the air on the blood in the congested capillaries.

The white medullary substance had a faint rose tinge, with numerous red points from divided vessels. The cortical or grey substance of the interior in the corpora striata, and thalami, was similar in colour to the external—choroid plexus deep red.

When the cerebellum was divided, the grey or cortical substance of the arbor vitæ, projected the extent of a line to a line and a half beyond the medullary, as though it was compressed, and had the same deep mahogany colour as that of the cerebrum.

The ventricles contained only ʒii. or ʒiii. of reddish serous fluid; the substance of the brain generally was firmer than usual.

Thorax.—Heart natural size and density—right auricle and ventricle distended with blood, but not as much as is often met with. The lungs healthy, crepitating, natural colour—collapsed when the thorax was opened—settling of blood at posterior portion.

Abdomen.—Peritoneum healthy—liver large—structure natural, colour deep purple; blood followed the scalpel in a stream, wherever an incision was made. A portion washed in water for a few minutes by the escape of the blood had its hue lessened and a yellow tinge was perceptible. Spleen very large and solid—weighed from seven to eight pounds. Mucous coat of stomach natural thickness and consistency—had brown hue, with slight redness—that of intestines was quite natural.

Observations.—This case from its symptoms and the autopsical examination, appears to me to illustrate very finely, a morbid state of congestion independent of inflammation; a condition of the organs, respecting which much is said and written, but of which I have met with very few examples.

Wilson, on his admission, was in a complete torpor, or adynamic state. All the vital energies were in collapse. The muscles were relaxed; in whatever position the limbs were placed in, that they remained. There was no starting of the tendons, not a sign to indicate irritation of the motorial nervous power. The respiration was not laboured or hurried, but calm and feeble, a direct proof that the nervous respiratory apparatus was not acting in excess. The intellectual faculties were dull, almost to complete torpidity. It was with great difficulty, we could rouse him to a few moments of attention, from which he immediately relapsed into his previous stupor. All the functions of animal life were prostrated.

The functions of organic life were equally depressed. The circulation, general and capillary, was feeble, and animal heat reduced. They were, however, capable of being roused by stimulation, though their actions could not be long sustained.

The morbid condition of the organs corresponded to the morbid phenomena that were exhibited. In the cerebrum, the cerebellum, and the medulla oblongata—the principal organs of animal life—a congestion of sanguine capillaries existed to a degree I have never before witnessed. I exhibited, a few hours after the examination, to my friend Dr. Horner, whose familiarity with the human structure, both natural and morbid, is generally acknowledged, a portion of the brain, on account of the peculiar appearance of its cortical substance. It was the first instance of the kind he had met with. The absence of effusion from the arachnoid or any marked change in the texture of the brain, are strong evidences that inflammation had not previously existed.

What is remarkable in this case is, that the lungs, the most vascular of all the organs, were exempted from congestion, while it existed in an intense degree in the nervous system, the liver and spleen. This circumstance is to be accounted for by the excessively intemperate habits of this lad, and illustrates an important pathological principle. The brain, the stomach and liver, are the organs that especially experience the stimulation of alcoholic liquors. In Wilson they were, from this cause, in a state of prolonged or chronic irritation, and the most irritable of his organs. When, from the impression of cold on his surface, or from other causes, the blood abandoned the exterior capillaries, and was thrown into the interior, it was attracted, as it always is, under such circumstances, to the organs in greatest activity of organic action, or in a state of irritation. That the mucous tissue of the stomach, did not exhibit a higher degree of congestion, may have been occasioned by the excessive engorgement of the spleen and liver, which proved diverticula to the circulation of those organs. Had the bronchial mucous membrane or the sanguine capillaries of the parenchyma been the seat of chronic irritation from previous catarrh, or pneumonia, instead of the brain, liver and spleen, the pulmonary apparatus would have been the seat of the congestion, and hæmorrhage, or pulmonary apoplexy, or acute inflammation might have been the result.

In this manner the state of the organs from habits, professions, previous diseases, &c. modify the effects of the same agent on different individuals, and give rise to very different morbid phenomena. The fluids are uniformly attracted or determined to the organs whose actions are habitually excited, or are in a state of irritation, and hence result congestions, hæmorrhages, effusions, inflammations, &c.

CASE XVI. *Colica Pictonum.*—David Graham, aged thirty, lead-beater, was admitted into Men's Medical Ward, October 8th, 1827. His habits were temperate: he had been engaged some time at Wetherill's factory in preparing white lead, and other matters relative to that business. Had been affected with violent colicky pains and constipation, for which he had been salivated, and for a few days was relieved; on 4th inst. relapsed, and was seized with much pain in the region of the stomach, and afterwards in the pubic and umbilical regions. The pain was sharp and lancinating, with a sensation of twisting about the navel; bowels had been very much constipated, and he suffered much pain when he tried to evacuate them. He has been under medical treatment, and was a second time placed under the mercurial treatment, purged freely, and blistered over the abdomen.

Symptoms on admission. Gums tender—breath mercurialized—periodical spasms of bowels, which are much constipated—tongue slightly furred and white—he has perfect use of his limbs—pulse full and active—skin moist and soft. Ordered ℞. ol. ricini ℥ss. twice daily; twenty-five leeches applied to anus; enema of senna tea.

9th. Has pain in side and epigastric region. Ordered cups freely to side, &c.—oil continued.

10th. Pain in bowels greatly relieved—freely moved—has little or no pain. Treatment continued. Prescribed light, mild, nutritious diet, as thin soup, milk, &c.

Afternoon. Occasionally has pretty severe pain—pulse rather full and tense—skin dry. V. S. ℥viij.

15th. Continues in convalescent state—bowels regular. Treatment continued.

20th. Suffers little or no pain—bowels open—discharged cured.

Observations.—This case, recorded by F. Horner, senior student, was one of colica pictonum, less violent than most of those usually brought into the infirmary. Though not a very aggravated form of the disease, the mercurial treatment, and salivation, twice induced, failed to accomplish a cure.

Colica pictonum presents two groups of symptoms wholly dissimilar—the one is connected with irritation of the gastro-intestinal mucous membrane; the other rally round an irritation of the apparatus of the nervous organs. This irritation is, most probably, for positive data are wanting to verify the fact, primarily seated in the ganglionic system, but very often extends to the motorial nervous organs—as is evinced in the spasmodic contractions of the voluntary muscles that are sometimes seen, as well as the spasms of the involuntary muscles, and the paralysis so frequently sequent to it. According as the one or the other irritation is most predominant, the symptoms vary, and a modification of the treatment is demanded. In Graham, the order of nervous symptoms was not very obvious. None existed in the apparatus of the voluntary movements. The local depletion by cups to the abdomen, and leeches to anus, with restricted diet, had a most prompt effect in abating the symptoms. Previous to his discharge he had been walking about the ward for some days, without any appearance of a return of the disease.

A severe case of colica pictonum was brought into the infirmary last winter, which was witnessed by the clinical class. The period of the disease was advanced, and the intestinal disorder was abated. The nervous morbid phenomena were predominant. Pain in the back and shoulders, and in the extremities was excruciating, and the lower extremities were in a state of incomplete paralysis. He was unable to sustain himself on his feet. In this case the efficacy of local depletion was most strikingly manifested. He was cupped along the spine, which, in a short time, completely removed the pain, and restored the power of the muscles of the lower extremities. Pain and inability of motion remained in the superior extremities. It was so excessive in the left arm, the patient declared he would consent to have it cut off. Mr. Ashmead, the senior student of the ward, finding the cups had relieved the pain in the back so effectually, applied them along the arm; an immediate relief was procured, and by a persistance in a regimen, with reiterated local depletions, the whole of the morbid nervous phenomena disappeared, and he was discharged cured.

CASE XVII. *Gastro-entero-colitis.*--Metfield, a black, admitted into Black Men's Medical Ward, September 21st, a labourer, habits intemperate, frame athletic. He had been attacked, eight or ten days previous, he said, with chills, had been sick at stomach, and had fever. He appeared exceedingly dull in intellect. At the period of his admission he had no fever, and made no particular complaint—the adnata slightly yellow. On the 23d, in the evening, Mr. Horner, senior student, found him sitting up; he wished to have a purge of calomel and jalap, but as his bowels were open, it was refused him. Early on morning of 24th, he had epistaxis; at eight o'clock went to the close stool, returned to his bed, and in a few minutes expired, without a groan or struggle.

Examined twelve hours after death. Body—no emaciation; head not opened; the white tissues were coloured yellow; thorax—lungs, and pleuræ natural, except some old adhesions; heart natural size: left cavities distended with blood, contained soft coagula; lining membrane spotted red.

Abdomen.—Liver natural—gall-bladder small, contained chiefly mucus coloured with bile. Stomach—no exterior marks; mucous coat morbidly thickened and hardened, gritted under the scalpel, was covered with tenacious, viscid mucosity, which, when scraped off, was bloody; the contents of the stomach were a bloody serous fluid; the follicles or mucous cryptæ of the mucous tunic of the stomach were enlarged, of a bright red, and studded its surface in small projections, resembling the papillæ of an inflamed tongue; the colour of the membrane violet.

The follicles throughout the small intestines were in a similar state. The jejunum contained a considerable quantity of thin brownish-green mucus. When removed from the mucous membrane, this was found injected with blood, of a violet colour, and felt granular from the enlargement of its cryptæ; following the course of the intestines, approaching the ileum, the mucus became bloody. The ileum, colon, and rectum, were loaded with a bloody mucus, having the colour and consistency of currant jelly. The mucous tunic of ileum was of deep red, with the capillaries beneath highly injected. Laminæ were formed on its surface, but no ulcerations. The mucous coat of colon was similar to that of the stomach, very much thickened, hardened so as to resist the scalpel, and gritted under its edge. It appeared to be the first step towards the transformation into cartilage, a degeneration of structure occasionally met with in the mucous tissue.

Observations.—Metfield entered the infirmary in the last period of what might be called a remittent bilious fever. During the last fall, a fever of this character was almost epidemic amongst the blacks of the city and suburbs. The sympathetic disturbances of the circulatory and nervous organs had subsided, an occurrence by no means unusual in this form of disease, when the patients appear to those who have not witnessed the course of the disease, or known its history, to be scarcely the subjects of medical treatment. I was called last September to see a gentleman, whom I found dying with black vomit and other symptoms of yellow fever. He had been ill six days, and the day previous to his death, he left his bed, went down stairs, took dinner with his family, and was considered by his attending physician, who had congratulated the friends of the patient, on what he considered a rapid recovery, as convalescent, until the appearance of the fatal signs—black vomit—cold sweats and sinking pulse—assured him of his error.

The examination of Metfield exhibits a condition of structure frequently observed, and which is the indication of a morbid state, generally terminating in a fatal manner. The thickening, the hardening, the approaching cartilaginous transformation of the mucous membrane of the stomach and colon, are not to be attributed to recent disease. It is the consequence of chronic inflammation, long sustained, producing a vitiation of nutrition. The diffused redness of the villi is to be referred to the same cause. But the swelling and redness of the cryptæ, the capillary injection, with the bloody mucus poured out into the stomach and intestines, were the consequence of acute inflammation superinduced on chronic inflammation, and in a structure that had undergone a morbid alteration. The vitality of a structure that has degenerated is always enfeebled, and it perishes very rapidly under excitement of its organic actions. Whenever acute inflammation is occasioned in a mucous membrane thus affected, phagedenic ulceration and gangrene are the most usual result In Metfield this degree of destruction did not occur, but the extensiveness of the morbid change and activity of the inflammation, occupying the track of the alimentary canal, from the œsophagus to the anus, speedily broke down the vital forces of the system.

In this case, we have another evidence of the existence of acute en teritic inflammation, always most fully developed in the lower portion of ileum, in idiopathic fevers, so called. This fact cannot be too strongly impressed on the minds of practitioners, who should never lose sight of it in their method of treatment.

The cases that have been detailed, will serve to give an illustration of the physiological treatment of diseases; and the dissections will show the structures chiefly concerned in febrile diseases, with the pathological condition in which they consist. In the next number of the Journal, the subject will be resumed, and additional cases with autopsical examinations be given, with a view to determine the seats, the character, and nature of various diseases.

Art. V. *Successful Case of Ligature of the Internal Iliac Artery, for the cure of Gluteal Aneurism.* By S. Pomeroy White, Surgeon, Hudson, N. Y.

IN the early part of October last, Jacob Van Volkenburg, aged sixty, by trade a tailor, came to Hudson for the purpose of obtaining surgical advice. He presented to our view a tumour about the size of a child's head, located upon his left hip directly over the sciatic notch. He stated that it was of ten months standing, and that he experienced no pain from it. His general health had been good, except that he suffered from rheumatism. Upon making an examination of the tumour, the skin was found not discoloured, fluctuation was perceptible but there was no pulsation. The absence of the last symptom rendered it difficult to decide upon the nature of the case, and accordingly we postponed giving an opinion until a consultation could be held with his family physician, Dr. Hicks, of Columbiaville. The doctor stated that the tumour could be removed by pressure, when small, but, from other cases he had seen of a similar kind, he presumed that it contained pus. He proposed opening it, and as that was the only way of ascertaining, unequivocally, the nature of the disease, we acquiesced. He accordingly punctured it, and nothing but florid blood made its appearance. A probe was passed in, and an aneurismal sac was found, about five inches deep. It was also discovered that the parietes of the sac were very firm and unyielding, which accounted for the absence of pulsation. After allowing a pint of blood to be discharged, the orifice was closed with a suture and adhesive plaster. It was observed that after this and also subsequent discharges of blood, that the sac would fill again and the tumour resume its usual dimensions. The disease was supposed to be produced by repeated falls upon his left nates. He was a man of rather intemperate habits, and, when stupified by liquor, would fall, as they expressed it, like a log. Being also lame in his left limb, from rheumatism, he, consequently, was most liable to fall upon his left nates.

The consultation board having unanimously concluded that the disease was aneurismal, it then became a question whether it was most for the interest of the patient to tie the gluteal or internal iliac artery. As a precedent for the former, we had Mr. JOHN BELL's famous case. In that, with all his dexterity, he barely succeeded in saving his patient, in consequence of the hæmorrhage, though some allowance must be made for his usual hyperbole. My father, also, stated in the consultation, that he had been under the necessity of tying the gluteal at the notch, but under the existing circumstances of this case he would not recommend that operation. Indeed, the inability of compressing the artery above the disease, the possibility of the patient dying of hæmorrhage before the artery could be secured, and the probability of the artery being diseased within the notch, were insuperable objections to tying the gluteal. On the other hand, we had an encouraging although a solitary* precedent, in the case of Mr. Stevens of the island of Santa Cruz. There the disease was the same and the application of a ligature to the internal iliac proved successful. The operation of tying the internal iliac was accordingly concluded upon, though the patient's age was considered as a circumstance that would operate against its success. He at first declined having the operation performed, but as profuse hæmorrhage repeatedly supervened, he became weak and alarmed, and requested us to pursue whatever course we deemed most expedient.

On the 23d of October he was laid upon the table, and an incision was made of a semi-circular form, commencing two inches to the left of the umbilicus, and ending near the external ring. It was seven inches in length, and the convexity of it was towards the ileum.

After dividing the skin, cellular substance, and superficial fascia, it became necessary to secure a few small arteries. The tendon of the external oblique being exposed, was next divided, and then the internal oblique and transversalis with its fascia. The peritoneum, which now presented, was detached from the iliacus internus and psoas magnus muscles, with the fingers, and was pressed with its contents towards the right hypochondriac region, by the assistance of my father. The external iliac was immediately felt, and by passing the finger towards the sacro-iliac symphysis, the internal iliac was distinctly recognized. The artery was then exposed with the handle of the scalpel, and the ligature passed under with the Philadelphia needle, one inch from the bifurcation. Instead, however, of drawing up the needle part with the hook, I found it more convenient to take it with the dressing forceps. One ligature being passed, it was found necessary, from the great depth of the parts, (being about five inches,) to pass down the knot with Dr. A. E. HOSACK's knot applicator. The ligature was then firmly tied, and the parts were brought together with sutures and adhesive plaster.

---

* I have, since the operation, understood that the internal iliac has been tied by a Dr. Atkinson, of England, but without success.

In this operation the same difficulty existed as in the case of ligature of the common iliac, by my distinguished friend, Dr. MOTT, of New York, viz. the constant protrusion of peritoneum from abdominal compression created by the struggles of the patient.

Some pain in the bowels, and fever came on a few days after the operation, which was removed by venesection and a laxative. Union by the first intention had taken place to a considerable extent at the first dressing on the eighth day. A considerable quantity of pus was discharged during the first four weeks, at the expiration of which time the ligature came away. The tumour has discharged its contents gradually, and the parts have assumed their natural appearance. The patient has so far recovered his usual state of health, as to be able to walk about his neighbourhood.

Hudson, N. Y. December 1st, 1827.

ART. VI. *On Superfœtation and Bipartite Uteri.* By JAMES M. PENDLETON, M. D. Lecturer on Midwifery, and Diseases of Women and Children, in the New York Medical Institute.

IT may perhaps be considered by some, that the pages of a public journal, might be more usefully occupied in the examination of subjects of a more practical nature, but it should be remembered that in the investigation of every subject, facts are frequently unexpectedly developed, which, in their application, are extensively and practically important; I therefore trust the subject I have selected will not be without interest. The subject of superfœtation as a department of forensic medicine, cannot fail to interest every physician anxious to acquire a thorough knowledge of his profession.

By the term superfœtation is meant the impregnation of an ovum at a time when a previous ovum already occupies the cavity of the uterus. Whether this ever takes place is doubted by many; it becomes necessary therefore, in the first place, to establish the fact, before attempting any explanation of the mode in which it occurs. For this purpose I shall select a few well authenticated cases. In the Dictionnaire des Sciences Medicales, Art. Superfœtation, is related the following. Marianne Bejaud, aged thirty years, was delivered of a boy at her full time, April 30th, 1748. The labour was easy and natural in all respects, and she soon recovered, she remarked, however, what had never occurred in her previous labours, that there was neither lochial discharge, nor secretion of milk from the breasts. A short time after her confinement, she experienced sensations of motion in the abdomen; the singularity of this circumstance led to an examination, and a fœtus was discovered conjectured to be about four and a half months old. From this period the abdomen regularly increased in size, she had nausea, morning sickness, and all the symptoms of pregnancy until the 16th of September, when she was delivered of a girl, full grown, and perfect in all its parts. Under the same article, is a second case: Benoite Franguet was delivered of a girl on the 20th of January, 1780. After her confinement she had no lochial discharge, nor was there any secretion of milk; the abdomen remained larger than usual after delivery, and continued gradually to increase until the 6th of July, when she was delivered of a second daughter, apparently arrived at maturity. By a reference to the dates in these two cases, it will appear, that in the first the second conception took place four and a half months after the first, and in the second, three months and fourteen days after the previous one.

The following case is related by Madame Boivin, sage-femme de l'hospice de la Maternite in Paris. A woman, forty years of age, was delivered, at her full time, on the 15th of March, 1810, of a small child. The abdomen remained distended, and Madame Boivin supposed that there was some foreign body in the uterus. The hand was passed into the uterus, and the cavity was found empty. During two months the woman experienced motion in the tumour, and on the 12th of May she was delivered of a girl, small, weak, and who breathed with difficulty. This woman stated that she had not lived with her husband for a long time, and that the two children were the result of a connexion with another man, once on the 15th and 20th of July, and again on the 16th of September: it will be observed that these periods correspond exactly with the differences between births of the children.

These cases are sufficient to establish the fact of superfœtation, according to the definition which we have given it. Periodical journals are filled with cases which are erroneously described as cases of superfœtation of this kind, as the case related by Dr. Dewees, of a white woman who was delivered at the same birth of two children, one white and one black. What does the case prove? Nothing but that two ova became impregnated by two successive connexions at the same time by two individuals of different colours, and should properly be considered as a case of twins. The impregnation of two ova, in all cases, is probably the result of a distinct connexion, as it is well established that in cases of twins the children are rarely of equal size or apparent development. The same thing may be said of the case of the negress of Gaudaloupe, who was delivered at the same time of a black and a mulatto, she confessed she had connexion, the same evening with a white and a black.

There is another case, not unfrequently met with, where an error exists in considering it as superfœtation. It is where at birth there are two children, one of which is considerably larger and more advanced than the other; or perhaps one is alive and perfectly formed, whilst the other is dead and very imperfect. Of this kind is the case related by Dr. Denman of the lady of Sir Walter Farquhar. When about five months gone, she experienced a most dreadful fright, and from that time the size of her abdomen began gradually to subside: on the 11th of February she was delivered of a fine though small girl. She continued in great pain and danger until the 25th, when she was delivered of a dead fœtus of about the age of four months. Instances are by no means rare of women being delivered of a full grown fœtus and at the same time of an embryo more or less advanced. Dr. Cossan, in his *Recherches Anat. et Phys. &c.* gives the following instances, "The wife of a surgeon at Amsterdam, was delivered of a well-formed child; ten hours afterwards, she discharged a small embryo having the umbilical cord filled with hydatids."

He relates the following, communicated by Mr. Percy, as a case of superfœtation, which may be taken as an example of the generality of such cases related in journals. A woman of Torrigny found herself pregnant for the third time. At four months, the motions of the fœtus were distinctly felt. These movements suddenly disappeared: at the end of about seven weeks they again re-appeared, and continued until the expiration of nine months, when she was delivered of a male child, small but active. After the delivery, the pains continued, and there was discharged from the uterus a black, soft, spongy mass, in the middle of which was a fœtus of four months. This, says Mr. Percy, is another example, to add to the others, of superfœtation. It is certainly more reasonable in this case to suppose, that at the commencement of pregnancy it was simply a case of twins, and that from some cause unknown one of the fœtuses had died and the other proceeded to maturity. There is also one more instance in which superfœtation is frequently described to have taken place, that is, where a female becomes pregnant at a time when she is labouring under an extra-uterine conception: the pages of our journals show that cases of this kind are by no means unusual; as a subject of inquiry we shall not consider them on the present occasion. With this limitation of our subject to those cases in which a female becomes impregnated after the ovum has passed into the cavity of the uterus, and in which the delivery of the two takes place at different periods and the fœtuses are both mature and perfectly formed, we proceed to consider the explanation of the mode in which this happens. Various opinions have been promulgated on this subject. First, it has been supposed that a second ovum impregnated has passed through the fallopian tube, to the cavity of the uterus, where, meeting the membrana decidua, it has pushed it away and attached itself to the uterus; the objections to this are, in the first place, the changes which the uterus undergoes in consequence of impregnation, the formation of a membrane which lines the cavity of the uterus, by which even if the ovum could become impregnated it could not get into the uterus, but secondly, the secretion of a mucus in the neck of the uterus by which the semen could not come in contact with the ovum, and consequently no impregnation be possible.

Dr. Dewees explains the occurrence of superfœtation on the existence of seminal absorbents arising from the vagina and conveying the semen to the ovum, where impregnation takes place. It cannot be required to produce arguments to refute a doctrine which is founded on a gratuitous assumption, such as the existence of seminal absorbents. No anatomist whose works I have ever seen speak of such vessels, and they probably owe their origin to the difficulty which attends every attempt at explaining the mysterious subject of conception. We shall now endeavour to show that this fact can be readily and satisfactorily explained by reference to the fact of the uterus being found divided into two compartments totally distinct from each other. That the uterus is thus found bilobate, or, as it is usually stiled, double, the following cases satisfactorily establish.

DUPUYTREN gives the following instance, "A woman, thirty-eight years of age, was brought to his theatre for dissection; a red substance was seen projecting from the vulva; when traced, it was found to extend throughout the whole length of the vagina: the os tincæ was divided by clefts, one perpendicular and one transverse. The finger when insinuated met with an obstacle in the median line of the uterus, on each side of which there was an opening. The neck of the uterus and the body were divided and separated from each other. The preparation was preserved in the anotomical museum of the Faculté de Paris.

The case related by Dr. TIEDEMANN is very interesting. and affords a practical caution to accouchers in forming opinions from manual examination. This female, during her labour was visited by two physicians, each of whom examined her; one declaring that she was not pregnant, that the os tincæ was firm and close; the other, that the os tincæ was open, and the head already engaged in it. This difference of opinion caused a discussion which led to an examination, when they found two vaginæ and a double uterus. Madame Boivin relates the following. In August, 1813, there was brought to her hospital a child, a few days old, who died shortly after of an imperforate anus. On examining the body, the uterus was found divided into two portions resembling lateral cones and opening into one vagina.

HALLER mentions the following case. A young lady, aged about twenty-six years, after being a long time indisposed, died of hysteric convulsions. On examining the body he found a double uterus with two vaginas, each accompanied by a single tube and ovary of a natural shape. A remarkable case was related, by M. CHAUSSIER, to the Faculté de Medecine of Paris. He exhibited the uterus of a woman who died at the Hospital de la Maternité, where she was delivered of her tenth child. The uterus consisted of but one-half, and that extending toward the right side: there was but a single fallopian tube and ovarium. Examples of double uteri might be multiplied to a great extent, but the foregoing are sufficient to establish the fact of their actual occurrence. Those who require further confirmation, may consult the works of HALLER, EISENMANN, Memoires de l'academie des Sciences, Canestrini Historia de Utero duplici, Memoirs of the Royal Society of London, vol. ix. Dictionnaire des Sciences Medicales, &c. where they will find numerous cases of this kind, under the denomination of uteri double, bifed, bilobate, bicorn, bilocular, bipartite, &c. &c. Granting these facts, which cannot be denied, the whole difficulty of superfœtation disappears, each of these cavities may be considered as distinct uteri, and such in fact they are, not only in function, but, in some cases, actually separate and distinct throughout; it resolves itself into a parallel case to that of many animals where the uterus is separated into two cornua, and in which superfœtation is known to take place. The probability of this unusual structure of the uterus, in cases of superfœtation, is strengthened very much by the case of Madame Boivin. She states that after the birth of the first child, she passed her hand into the uterus to ascertain the cause of the tumour which was perceptible externally, and she found the cavity empty. This would be the case certainly if she examined the cavity from which the child was expelled.

The existence of two cavities in the uterus also explains the occasional occurrence of menstruation during pregnancy, a fact established by the testimony of DENMAN, BARD, HOSACK, &c. Having, therefore, established the fact of superfœtation and the difficulty of explaining it, and also the frequent occurrence of bilobate or double uteri, and the natural solution which it affords of all these difficulties, we may naturally conclude that where one exists the other will be found to exist also. I shall not at present consider the confirmation which this subject gives to the theory of analogues, promulgated by M. GEOFFROY ST. HILLAIRE, nor to the correspondence which these various degrees of anomaly in the structure of the uterus have with the structure observable in the various scale of inferior animals. This may be the subject of another paper.

ART. VII. *Remarks on the various modes usually adopted for the removal of the Tonsils.* By ALEXANDER E. HOSACK, M. D. of New York.

THE frequent occurrence of the disease requiring the operation of removing the tonsils, should be deemed a sufficient apology for calling the attention of the profession to a subject apparently so simple in itself, and which is rendered still more so from the various improvements suggested by the surgeons of this country, as well as by those of Europe.

Of late years the removal of the tonsils by the canula and silver wire, was considered the only safe and practicable mode of removing those glands. The mode of operating was by means of a double canula from three or four inches in length, armed with a silver wire, the latter to be placed round the tumour, and to be drawn with a degree of tightness requisite to strangle the part inclosed, and the wire to be tightened from time to time, until the part dropped off; which generally was accomplished within four or five days. To Dr. PHYSICK the credit is due of shortening the suffering of the patient, by removing the wire after the first twenty-four hours, leaving the slough to separate by the process of nature; and by substituting an iron wire instead of silver, which is more readily disengaged from its attachments; but even with these improvements the patient suffered much, not only from the pain of the application, but from the inflammation and fever which is attendant upon this mode of operating. All other modifications of this plan, are very unimportant. Having had an opportunity, during my late residence in France, of frequently witnessing the successful removal of the tonsils by the knife, and having, since my return, performed that operation in six instances with the same favourable results, I avail myself of the opportunity afforded me through the medium of this journal to call the attention of the profession to the manner of conducting this operation, and the advantages it possesses over every other mode of removing the diseased tonsils—nothing more is necessary than to pass a hook through the body of the enlarged gland, and to raise it from its bed between the arches of the palate, then to pass a probe-pointed bistoury under its base, and with one stroke to sever it from its connexion: the hæmorrhage never exceeds two ounces, and is always to be arrested by a draught of cold water.

The following case is illustrative of the advantages which this mode has over all others before mentioned:—

A young lady, fourteen years old, suffered great inconvenience for a long time from an enlargement of both tonsils. In 1826, she was subjected to the mode recommended by Dr. Physick; as soon as the wire was applied, she was seized with convulsions,* which were only subdued by the removal of the wire: from this circumstance, the mother, who related to me this fact, had made up her mind never to have the operation attempted a second time. Dr. BROWN, the attending physician, consulted me as to the practicability of removing the tonsil of the opposite side by means of the knife: to this there could be no objection; having assured her that it would be attended with a momentary pain, and that very inconsiderable compared with what she had experienced, she consented to the operation: it was performed in the short space of half a minute; the patient instantly declared that the pain bore no comparison to her sufferings caused by the first operation, nor afterwards did she experience the least inconvenience, even the next day she was enabled to walk out for pleasure. The objection usually advanced to this practice arises from an erroneous idea, as to the vascularity of the tonsil, and the hæmorrhage to be apprehended. Referring to the vessels of the throat and posterior nares, we find that the artery, which nourishes the tonsil is so indirect in its origin as to have the force of the circulation expended before it reaches its destination, being a branch of the third branch of the facial, which again is the third branch of the external carotid, making in all no less than six branches—under these circumstances hæmorrhage to any great extent is certainly not to be expected: the facts too on this subject are so numerous as to banish all apprehensions of danger from this source.

---

* Such an accident never occurred to Dr. Physick, and in conversing with him on this subject, he informed us that the greatest fault which can be committed in the application of the ligature is, not drawing the wire sufficiently tight to destroy the vitality of the part as quickly as possible, when this is done the severity of the pain generally subsides in the course of a few minutes, he however decidedly prefers excision.—I. H.

It may be remembered that this operation is not of modern date, but was performed by the ancient surgeons. To CELSUS the credit appears to be due as the projector, and the first to put in practice this mode of operating with the knife. Prior to and about the time of Celsus, it was the practice literally of gouging them out with the fingers and nails, and for this purpose the latter were permitted to grow to a convenient length. If at any time the resistance was found to exceed such means, they then felt themselves justified in removing the diseased parts by means of a bistoury and hook, such as was recommended by PAULUS ÆGINETA, the bistoury used for this purpose being concave on the side opposed to the tongue. Both of the last cited operations by the fingers and by the knife were objected to by FABRICIUS; he condemns the first as being quite as difficult as dangerous: the mode by excision he considers hazardous, from the hæmorrhage that is likely to ensue, but he has not noted any instance in which such hæmorrhage took place. It is at this time that we see the actual cautery recommended for the cure of this disease: however useful it may have been found in other complaints, it certainly was ill-judged in this, nevertheless it soon came into general use in most parts of Europe. Afterwards the feelings of humanity revolting at this application, the slow caustics were substituted, and finally the ligature took their place. They all received the sanction of WISEMAN and HEISTER; the former made use of the ligature at first, and the bistoury afterwards, supposing that he was enabled to close the larger vessels before removing them with a cutting instrument; if the tumour was pendulous, the knife was preferred; if its base happened to be broad, the patient was doomed to suffer the agonies induced by the application of the hot iron—those who made use of the potential cauteries were cautioned against allowing the potash to slip from the pincers into the œsophagus or trachea. The ligature was now in great vogue in Germany and Italy; MOSCATI, who had many opportunities of practising the various modes then in use, states that he was obliged to abandon the operation with the ligature, in consequence of the inflammation which always supervened, having, in many instances, threatened the lives of his patients. But adopting that of Celsus, he was almost as unfortunate from the circumstance of the patient being seized with a convulsive cough during the operation: consequently the tumour being half cut through, it rested upon the glottis, and nearly caused suffocation: as there is no direction given by him whether to commence the incision above or below, we must draw the inference that it was made from above downwards; he afterwards made use of scissors; not finding them as convenient as the bistoury he was obliged to return to it again—he never could have had fear of hæmorrhage, for he remarked that the vessels of the tonsils were very small. An improvement suggested by DESAULT; merits our notice—it is as follows:—a hook being passed through the gland to suspend it, then with two plates of silver soldered above and below, notched at one end, were applied in such a manner as to receive the tonsil, a blade is then pushed between the plates, which will separate the tumour in part—three efforts are usually made for this purpose. By referring to the works of that author it will be more readily comprehended, as it is illustrated by a plate. We also find that Desault recommends the use of the ligature should the patient refuse to submit to the excision, in that case he gave preference to the plan which he recommends for the removal of the polypus. Still he speaks of the dreadful consequences attendant on such practice. The plan of operating varies but little as it regards the instruments which are requisite in applying the ligature, they are all injurious and all answer the purpose to those who may prefer them.

On reviewing this short history of this operation, we find the plan first adopted by Celsus maintaining its importance, and sustained by the recent observations and experience of DUPUYTREN, ROUX, VACCA, and their followers.

Art. VIII. *Case of* Mr. Adrian A. Kissam, *Student of Medicine, who perished in a few days after receiving a slight wound in dissecting. Reported by* John D. Godman, M. D. Professor of Anatomy and Physiology in Rutgers Medical College, N. Y.

On Tuesday, the 27th of November, about eight o'clock in the evening, Adrian A. Kissam made an incision about a third of an inch in length, across the fleshy part of the last joint of his left middle finger, which bled freely. He was engaged at the time in studying the relations of the abdominal viscera, and immediately previous to the reception of the cut, had been using his scalpel about the inferior surface of the liver, and the parts of the intestine which usually are discoloured by the fluids which in the dead body filter through the parietes of the gall-bladder. He complained of considerable smarting at the moment, and when my attention was first called to the wound, he was standing by the table squeezing the blood from the end of the finger. I requested him to wash his hands perfectly clean, with soap and warm water, of which there is always an abundant supply in the room, to suck the wound forcibly until he could no longer draw blood, and to close it up securely with court-plaster, adding that when this was done the danger would be over. Thinking that this direction would be at once followed, I went to other parts of the room and assisted the various classes in their studies. Some time after, returning to the table where Mr. Kissam was still employed, notwithstanding his wounded finger, examining and removing the abdominal viscera, I once more repeated to him the necessity of attending to the wound, and concluded by warning him to recollect, that if he neglected the advice it was "at the peril of his life." Unfortunately! he continued to pursue his dissection, and contented himself with merely washing his hands when he withdrew. Before he arose the next morning, he was seized with nausea and vomiting; he came to the college at ten o'clock, and while there became sick and vomited; his pulse was considerably excited, and his whole system appeared to be in a state of tumultuous uneasiness. Dr. Mott saw him at this time, advised him to go home, and get his father, Dr. Benjamin Kissam, to bleed him, and administer some cathartic medicine; he also directed him to apply a poultice to the finger, and to keep as quiet as possible. He went home and conformed to the direction in all points except in that of being bled. The medicine operated well, but he passed a wretched night. On the morning of the second day from the reception of the wound, (Thursday,) I was called to see him in consultation with Dr. Mott and Dr. Kissam, his father.

When I entered the room he was standing by the fire place with his left arm stripped, which Dr. Mott was examining, and never can the impression be effaced from my memory, which the expression of his countenance produced upon my mind. The left side of his face looked very much like the face of a paralytic, the muscles seeming relaxed and powerless, although there was no distortion towards the right side. An expression of intense anxiety was imparted to the countenance, and gave an air of wildness and alarm to all his movements. He complained of great pain in his head; the arm was not remarkably painful, the wounded finger slightly so, and the wound itself exhibited nothing of active inflammation; the pulse was not remarkably excited. The absorbents of the chest extending along the border of the pectoralis major were visible, being inflamed; none of the absorbents of the arm were similarly obvious.

A strong ley poultice was directed to be applied to the wounded finger, a large bread and milk poultice to the axilla, and ten or twelve leeches were applied to the head. The spirit vapour bath was also suggested with a view of determining to the extremities and surface, and if possible to produce perspiration; I have personally experienced under similar circumstances, the greatest relief from this treatment, and was inclined to hope its effect in this instsnce would be beneficial. Dr. Kissam applied this bath, (with Jenning's apparatus,) for upwards of half an hour, without any other effect than that of exciting a glow upon the extremities and surface of the body which had previously been cold.

When we visited him at half past four o'clock the pain in his head was greatly increased, his countenance indicated much congestion of the brain, he was drowsy, and spoke with hesitation, and the pulse was full and strong, though yielding when pressed. In consequence of these symptoms, we resolved to bleed him. Dr. Mott opened a vein in his right arm, and drew about eight ounces, which afforded immediate relief. All the symptoms of distress about the head ceased; the expression of countenance became natural, and he spoke freely, distinctly, and cheerfully. The nausea and disposition to vomit, which had existed from the first, now began to become more troublesome, and with a view to remove this distressing condition, a blister was directed to be applied over the epigastrium, after the skin had been reddened by the action of a mustard plaster. Blisters were also applied to the insides of his legs, and sinapisms to the soles of his feet. He remained tranquil at bed-time, and on the whole we were inclined to hope.

Friday—the blisters drew well, but made no change in the state of the stomach; during the night he had been somewhat delirious, but was now composed and steady—he said he had drank considerable quantities of fluid during the night; his stomach felt distended and uneasy. He then retched, and threw up a mouthful of yellowish coloured fluid. In a minute or two afterwards he called for the basin, which I held for him; he made an effort to vomit, and threw up a solid portion of fæces about the size of a small nutmeg, accompanied by a considerable quantity of fecal matter mixed with fluids which had been swallowed. His head pained him excessively. He had no sensation of burning about the stomach, and did not feel the least uneasiness on pressure of the abdomen. A dose of volatile alkali, 15 gtts. and Hoffman's anodyne liquor was administered, which he retained. He was ordered a similar dose every three hours. He fell asleep, and remained quiet for some time. At 10 A. M. the determination to the head recurred with great violence, cups were immediately applied to the temples, and subsequently a blister to the back of the neck. The cupping relieved his head considerably. He now, for the first time, complained of pain in his finger, which was very slightly swollen, I laid the finger freely open from its second joint to its extremity.

At this time he was visited by Dr. Hosack, who advised a repetition of the general bleeding, and he was accordingly bled from the arm until about six ounces were removed. The violence of his pain in the head and general uneasiness were abated, and he remained tranquil for some hours after. When we visited him again in the evening, his pulse was steady though compressible, the irritability of his stomach, and the disposition to vomit still continued when he swallowed any fluid in quantities larger than a spoonful at a time. At bed time there was some increase of the heat and uneasiness about the head, for which he was directed to be sponged, occasionally, with tepid vinegar and water; and as his stomach rejected every thing, unless in very small quantities, he was to take a table-spoonful of toast-water, of cold tea, or plain water, through the night.

About twelve o'clock of Friday night, Dr. Mott was called suddenly to visit him, and found him labouring under an increase of the vomiting, or rather the symptoms of ileus began again to show themselves. As the surface had been already extensively blistered and the depletion which had been employed had caused no change in his dreadful condition, Dr. Mott administered an injection of one hundred and twenty drops of denarcotized laudanum. This suspended the vomiting, produced a full anodyne effect, and in the course of a few hours was followed by a general and free perspiration. He slept during a considerable part of the forenoon and when awake was perfectly rational. He appeared so much better, altogether, as to inspire us with hope that the worst was over, and that his system would begin to recover from the dreadful shocks received.

Saturday.—As the drowsiness produced by the opium still continued, some alarm was expressed by members of the family, in consequence of which a simple clyster was administered which caused a moderate evacuation, and in the course of three or four hours several evacuations of dark though not very offensive matter. This indication of the cessation of the inverted peristaltic action, induced us to hope that the stomach would now retain some nutriment, which was directed to be prepared; but while it was getting ready, symptoms of great prostration began to appear. The pulse sunk, the dejections became frequent and involuntary, and a vomiting or rather belching forth of a dark green matter, convinced us that our hopes were entirely vain. In this condition we attempted to administer cordial and stimulant medicines, though conscious that little or nothing was to be expected from them, and the rapidity with which our patient sunk, soon caused us to desist from our unavailing efforts. He was perfectly rational and collected; insisted that his medical attendants should declare that they had no further hopes in saving his life, and after he had forced them to give their reluctant assent to his inquiries, he resigned himself with calmness to his fate.

Though his extremities were now cold, and the hand of death was evidently upon him, he called all the individuals of his family around his bed, and spoke to them in turn, and by name, bidding them a most affectionate farewell. He continued in a state of perfect calmness for several hours, during which time the ordinary means of sustaining and arousing the system were employed. Towards morning some slight degree of reaction occurred, and caused a faint hope that even yet his life might be saved—but this hope was fugitive. He continued to sink until the moment of his death, which happened on Sunday morning the 2d of December, 1827.

It is scarcely necessary to add, that his decease cast a deep gloom over his fellow students. His ingenuousness and excellence of character; his devoted application to his studies; and the ardour with which he sought to distinguish himself among his class-mates in every laudable enterprize, had acquired for him the respect and esteem of all who knew him.

[We are permitted by our friend and colleague, Dr. Godman, to express our suspicions, that the above case was one of acute and violent inflammation of the mucous membrane of the intestines, terminating in gangrene, and that the wound received in dissection was a mere coincidence, and did not produce the symptoms from which the patient suffered. As no post mortem examination was made, in consequence of the request of the patient, it is impossible to verify the correctness of this opinion; but it must be acknowledged, that the symptoms were very similar to those of inflammation of the mucous membrane of the intestines, and different from those usually produced by wounds received in dissection. I. H.]

Art. IX. *On the Safety and Advantages of Mercurial Inhalations.*

By Samuel Jackson, M. D. of Northumberland, Pa.

THE beginning of the nineteenth century is distinguished in the medical world, far above any former period, for the persevering industry of physicians in rescuing many from an untimely grave, who but a few years ago were *scientifically* given over to the ravages of disease, and the triumphs of death. The iliac artery, the carotid, the innominata, the aorta, have all been tied; diseased ovaries have been removed; the abdomen has been opened and the invaginated bowels rectified; the thigh has been successfully amputated at the hip; the parotid gland dissected out; and bronchotomy is no longer considered an affair of tremendous moment. If we should pretend to bring before the profession a simple process, by which more lives may be saved than by all these splendid operations combined, we may yet hope to escape the imputation of empirical vanity, as it will appear extremely facile, and within the capacity of every attentive physician.

A successful method of curing common diseases confers little splendour, but infinite usefulness; for more patients die of a simple pleurisy and its consequences than of the whole group of maladies requiring those fearful operations. To make ourselves acquainted, therefore, with ordinary diseases, and their methods of cure, is the primary duty of the practical physician; and hence it was that while the students in the University of Edinburgh were curiously gaping over the dissection of a bicephalous child, one of their number, who afterwards became a celebrated physician, was found busily employed in examining the patients in the fever ward. He said that he should probably spend all his life among febrile diseases, but that he might never see a double-headed child again. Impressed with these sentiments, we shall venture to lay before the profession a method of treatment which we have found successful in some dangerous and almost hopeless states of disease. We offer it, not as absolutely proven, but as in probation; and hope that it will claim the attention which the subject, independent of this paper most eminently merits.

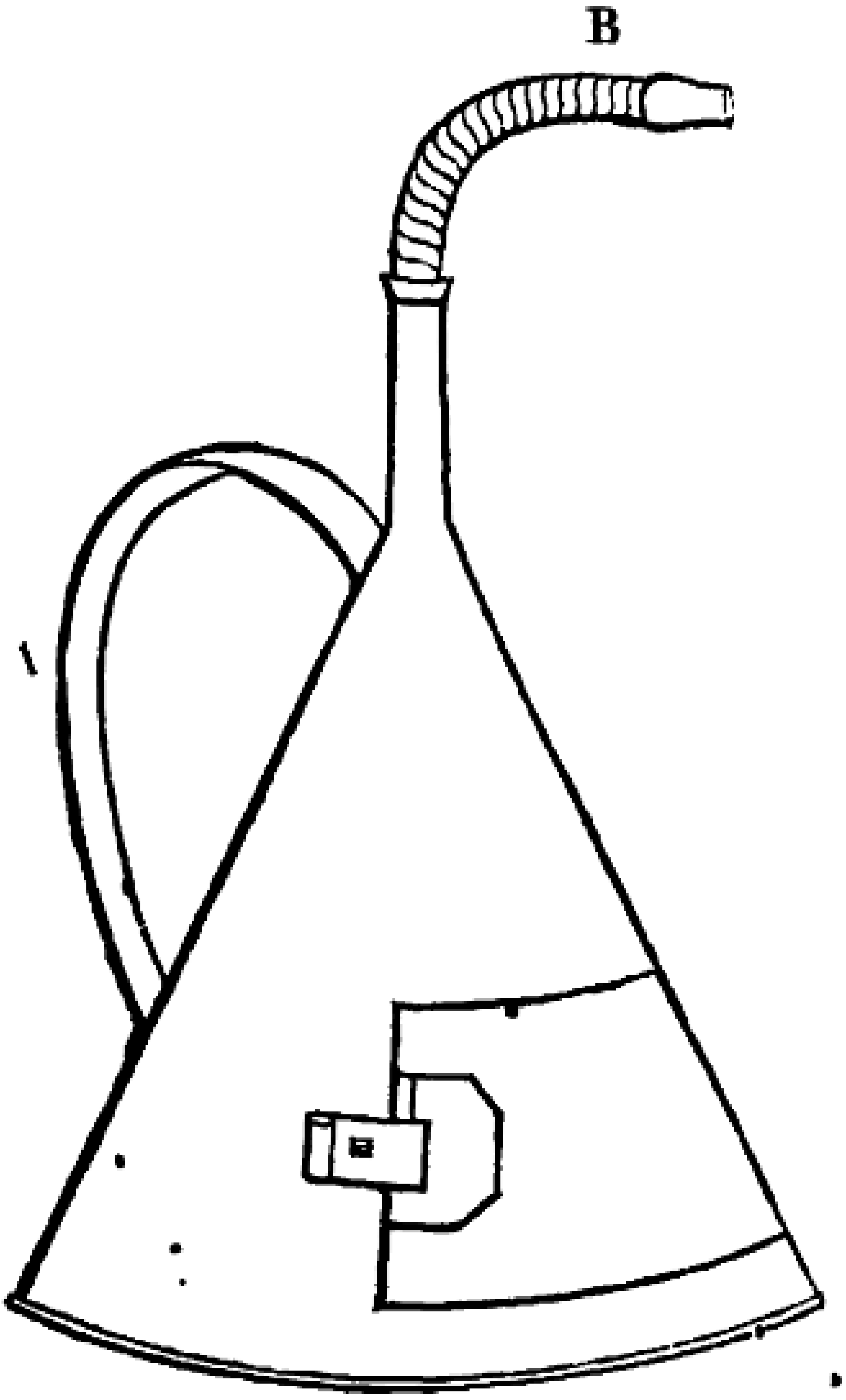
It is well known that in many diseases there often occurs a condition of the system, which would appear to render all remedies utterly nugatory, unless the patient can be speedily brought under the alterative or deobstructing powers of mercury. Such is the state of things in many of the congested and inflammatory cases of typhus, as also of the yellow and other bilious fevers. We often read of physicians labouring in vain to salivate a patient; the medicine is slower than the disease, or probably his susceptibilities are locked up by inflammation or congestion. In the local phlegmasiæ, also, a speedier method of affecting the system is required. A pleurisy, to which you are probably called too late, is not half subdued before the patient begins to succumb. You have done all that can be done by bleeding, blisters, and antimony; but the disease goes on, and there is no remedy unless mercury can be brought into action. But in all probability you have depended, and very plausibly too, on the use of common remedies till it is now too late to affect the system; or if you finally attempt it by frictions and calomel, the total operation of these passes off by the bowels, and your only hope is gone.

To insure a speedy effect in these deplorable cases, we have been for several years in the practice of using inhalations of the medicine, by which the system is soon possessed of the mercurial excitement and all its salutary effects, as it regards *these* states of the system, are very quickly attained. The preparation which we prefer is a modification of LALONETTE's; it is less offensive to the lungs than cinnabar, and as it is easily and quickly prepared of materials within every one's reach, it may be considered as always in readiness. But inasmuch as our paper may fall into hands which are not in possession of a method of preparing it, we shall give an improved recipe from *Abernethy's Surgical and Physiological Observations.* It has been copied into *Rees's Cyclop. art. Fumigat.* into *Cooper's Surgical Dict. art. Mercury*—and probably into other books which we have not read, or which do not come into mind.

> "Two drachms of aq. amm. are added to six ounces of distilled water, and four ounces of calomel are thrown into this liquor, and shaken with it; the powder is then separated by the filter and dried."

This is the preparation which was used by PEARSON and ABERNETHY, for the peculiar fumigations recommended by Lalonette; but to this we shall add for the convenience of those who may not have the aq. amm. at hand, that the sp. amm. either simple or aromatic, is equally suitable. Rain or river water may be used when the distil ted is not to be procured, and the medicine can be prepared in a single hour.*

When we first used fumigations, we evaporated the powder from a fire-shovel or a smoothing iron, and directed the smoke to the patient's face by means of a common funnel. This method answered pretty well, but a large portion of the medicine passed off laterally, without coming into the sphere of his respiration. To remedy this inconvenience, we covered the patient's head with a sheet, elevated on the segments of large hoops, and then evaporated the mercury within this little sudatorium; as by this means he could not fail of inhaling the proper quantity. But this method was altogether inadmissible when it became necessary to avoid an exhausting perspiration, and therefore we devised a little instrument which directs the whole volume of vapour immediately on the patient's lungs.



---

* We have not Pearson or Abernethy at hand, and it is many years since we read them. All the knowledge we possess of what they say on this subject, is derived from the above mentioned portions of Rees's Cyclopædia, and of Cooper's Surgical Dictionary.

The outline of this is a common tin funnel, about nine inches diameter at the base, with a flexible tube attached to the pipe. The base of the cone or funnel is closed with tin, and a door opens at the side large enough for the convenient introduction of a heated iron, weighing about two pounds. A little sheet-iron stand on the inside supports this iron, and thus prevents it from burning the bottom of the cone, or from rendering it too hot to rest occasionally on the bed. In the preceding figure, which will give an adequate idea of this little apparatus, A is a handle, which is very necessary as the cone becomes too hot to be held in the hand; B is a flexible tube of spiral wire covered with morocco, similar to that of MUDGE's inhaler.

SWEDIAUR, in speaking of fumigating external sores with cinnabar, directs an iron funnel formed of one piece without solder—a precaution wholly unnecessary, as no amalgamation can take place with either tin or solder in the present case.

To use the apparatus, let the iron be heated not quite to redness, and placed on the stand; about ten grains of the powder are then to be thrown upon it, and the door closed. The flexible tube directs the smoke to the patient's mouth, whether his head be covered, as above-mentioned, or not. When the evaporation ceases, another such portion is thrown on the iron, and from two to six such portions may be used in immediate succession. This process may be repeated every two, four, six, or eight hours, according to the exigencies of the case. When this method has been used for several days, the attendants have been salivated, and they must therefore be cautioned against respiring the fumes more than is unavoidable.

We should not think it necessary to observe, were it not in our own defence, that we ought to be more assiduous in watching the effects than when mercury is used in any other form. We have brought the system under the influence of it in twelve hours; and we presume, from our little experience, that it must be a very intractable state of the body which can hold out more than two or three days. In the use, however, of this hitherto dreaded mode of administering the remedy, we must regard the pulse and the general system; for if in these the happy effects of mercurialization are observed, we must proceed with the utmost caution; but as soon as the fetid breath is perceived, we ought to suspend the operation, as the present object is now attained, and if additional mercury be required, we can administer it in the ordinary way.

We are well aware that the intelligent reader already presumes to recognise in this method an exploded practice; but here we must implore his patience, while we set this matter in its proper light. Critics are sometimes too quick for their own understandings, and not unfrequently condemn before they comprehend. Let it be observed, therefore, that it was once the practice to expose the body and lungs of venereal patients to the fumes of mercury, in order to excite a salivation, instead of using the medicine by pills or inunction; but no where do we learn, as far as our limited reading extends, of snatching patients from the very grasp of death, by administering the fumigation in common diseases; for however well established may be the practice of salivating such patients, the present method of doing it seems to have escaped the diligence of medical investigation. The following quotation from *Bell on Lues Venerea,* will determine at once what the practice was, and also upon what principles it was abandoned; at the same time it will show how easily the system is affected, even when the vapour is not directed in a full stream on the lungs.

> "The fumes of mercury are applied to the body by burning different mercurial calces in the patient's chamber. By thus breathing, as it were, a mercurial atmosphere, and having the fumes equally applied to every part of the surface of the body, the usual effects of mercury upon the system are soon produced, more quickly, perhaps, than by any other method. Where it is meant to raise a salivation suddenly, or to throw mercury quickly into the system, this is perhaps the surest method of doing it; for with the fumes of mercury a salivation is sometimes excited in the course of a few hours. This brought the practice into much repute, when salivation alone was considered as the chief part of the cure; but now when it is known that lues venerea may be cured without much salivation; that the more gradually the mercury is thrown into the system, the more effectually it operates; and that very violent effects are sometimes produced by fumigating with mercury, the practice has of late been very generally laid aside."

The author then goes on to show the many advantages of directing the fumes upon syphilitic ulcers, and even acknowledges that he had "met with a few cases in which the mercury either went off too rapidly by stool when taken into the stomach, or where it was not absorbed, if applied in form of unction to the surface of the body, and in which it soon proved effectual when used in this manner."

More recently we hear nothing of the respiration of mercury, unless for the purpose of applying the medicine directly to ulcers in the fauces. Lalonette and Abernethy were no doubt impressed with some horrific phantom of danger, in contemplating the exploded practice, since they enclosed the naked patient in a tin box, with his head extruded, so that he might breathe the pure air, while the fumes were operating on the external body. They excited a salivation with great certainty, but many of the patients whom our method regards, cannot be removed from their beds to be thus incommodiously enclosed in a tin box.

The peculiarity, therefore, of the practice we are now recommending is reduced to these two points:—*First,* to direct the fumes to the lungs only, as this can be done without any disturbance to the debilitated patient; and *secondly,* to use them in all cases of common diseases for which a salivation may be indicated, and there is not time to effect it; or not sufficient excitability remaining to be acted upon by the medicine in common form.

With respect to the safety of this method, we presume there will be some question in the mind of every reader. Even the fumigation of the surface was denounced by CULLEN as a dangerous experiment, and it was, therefore, not without some trepidation that we ventured to apply it to a surface as extensive as the skin, and infinitely more susceptible of gaseous impregnations. It will no doubt be considered as rather an uncertain method, as the quantity the patient may respire, will be very different in different cases. But the same objection lies against its internal and cuticular use; for though we can in these applications limit the quantity, yet some stomachs and some skins are surprisingly sensible to the medicine, while others can hardly be affected, however zealous and intrepid our endeavours. It is true that we can form a pretty correct estimate of the mercurial excitability in many states of the system, but in many others we have much to learn; and since mercurialization is at all times a tentative process, the present method of tentation may possibly be rendered as safe as any of those in ordinary use.

The safety of the method, however, and its celerity also, are set forth, and in some measure confirmed, by an extract of a letter from Captain Sykes, published in the London Medical and Physical Journal, for March, 1827, and republished in the North American Medical and Surgical Journal, vol. iv. p. 172. A retort exploded in which mercury was distilling with lime, and the vapours salivated several persons in the course of twenty-four hours, a fact which the physicians of the army improved to their immediate use. The captain says—

> "Our medical men produce salivation in twenty-four hours, and I have heard of a recent instance of its being produced in seven hours, by fumigation. My shastree, a learned Brahmin, asserts, that the practice of exciting salivation, by means of inhaling mercurial vapour, has been used by the Hindoos from time immemorial Bees-wax is melted, and spread over strips of thin cotton cloth; an equal quantity of cinnabar in powder is spread over the waxed strips, which are then rolled up in the shape of candles. The person to be salivated is seated

on the ground and a blanket is thrown over him; the lighted cinnabar candle is placed under the blanket, so that he inhales the vapour."

The captain expressed some doubts of this pretended antiquity of the practice, but the shastree pointed out a passage in an ancient Sanscrit work, in which the process was described. This may have been an Indian imposition, unless the captain understood the language. The letter, however, and particularly the fact of the physicians having adopted the practice, is a very striking instance in proof of the practicability of our method. We may expect to hear, in due time, all the particulars, and the general result of their experiments.

In offering this remedy to the consideration of the medical public, let it be remembered that we propose it in those cases only which are nearly desperate under all common methods of treatment: nor even in these should we use it, at least in the present state of our knowledge, unless in all probability there might not be time to mercurialize the system in any other way. We are not proposing any new indications, but merely a new method of fulfilling those which have long been considered as perfectly orthodox. The practice of salivating in fevers, is with us by no means a favourite: on the contrary, we consider it as a painful and justly odious remedy, which not unfrequently prolongs the patient's distress; but every one knows there are states of the system, in almost every species of fever, which to all human eyes, cannot be relieved in any other way, and in these nearly all learned physicians have agreed to use mercury, until some milder method be discovered. Such are many congested and inflammatory cases, in which the free use of venesection is often inadmissible. Dr. Armstrong relies greatly on the use of mercury in all these dangerous states of typhus; and we have long heard, and shall probably long continue to hear, of the imperious necessity of salivation, in very many cases of yellow fever. This disease, as it appeared in Philadelphia in 1820, was an intractable malady, and the physicians relied greatly on ptyalism, but they were often unable to attain it.*

In the puerperal fever, a most interesting and alarming disease, large doses of calomel have been given, as in yellow fever, for the two-fold purpose of exciting catharsis and salivation. Many cases of this disease run so rapidly through the stage of excitement, that every thing must be done within a few hours, or the patient is lost. Some of these as related by Denman and Armstrong, are highly congested states of fever that might possibly be prepared for the operation of mercurial fumes by the warm bath, frictions, and external stimuli:

---

* Dr Jackson's Essay, Philadelphia Journal. vol 2. sub principio

but, however this may be, we should propose this method as a last resort in all cases that have been too long neglected, maltreated, or that are sunk so low that venesection can be used no further, while unsuppurated inflammation is known to be in progress. From what we have seen of the puerperal fever we should consider the late practice of rubbing the abdomen with mercurial ointment as entirely futile. In fact, those cases that we have seen of the genuine disease would not tolerate such frictions, nor indeed any thing heavier than the anointing with a feather. We suspect this practice had its origin in the supposed analogy between the inflammation of puerperal fever and erysipelas; and we presume that time will find it as useless in the internal, as it is now demonstrated to be in *severe* cases of the external disease.

Upon the same principle that we should use it in puerperal fever. we should also recommend it in every species of internal inflammation, in which depletion could be carried no further, and there might not be time to introduce the medicine in the ordinary way.

In the pneumonia typhodes, which runs its fatal course in old weakly people and drunkards, with most appalling rapidity, we first conceived the idea of using these fumigations; but we have not tried them, as the disease disappeared from our circle of practice, when the bilious fevers invaded us, seven years ago. To these patients when broken down with old age or intemperance, venesection is certain death, so also is a profuse perspiration; and if the disease is not arrested before it inundates the bronchiæ—*væ medico,* the sick man. is forthwith suffocated. The very process of nature which cures the robust, is certain to destroy the debilitated.

Physicians have long placed their affections on mercury in hydrophobia, but complain that time is wanting to affect the system. We confess that to us a salivation has always appeared a very promising remedy, as the fatal symptoms would seem to depend on such internal inflammations and lesions as a strong mercurial excitement, is known to prevent, and often to remedy.

A disease almost as fatal as the hydrophobia, has lately become so frequent as to impress the most ardent and fearless votary of anatomical knowledge with terror and dismay. We presume the mercurial vapour will appear a promising remedy; and particularly if the malady should reach the fauces, as it once did in my own person, from having dissected a child who died of a very uncommon suppurative disease of this part.

In all venereal sores which are making rapid progress, and in which it is therefore desirable to arrest the disease without further loss of substance, the practice of fumigating them has been long established. By directing the fumes on a man's nose, in order to save it quickly from further erosion, we salivated him in three days, though his system had resisted every form of mercury which a skilful physician had been giving him for four months. But on this subject there can be no disputation; we only mention the fact in order to show with what great facility the medicine operates.

Case I. John Mullin of this town, after repeated attacks of remittent and intermittent fever, applied to me last January, in the following deplorable condition. From having been a very healthy, vigorous man, with a blooming complexion, he was now pale and cadaverous —the conjunctiva bluish and shining—the features pointed—tongue foul—pulse 120, quick, salient, full, and strong—hard, dry cough, with pain under the sternum, and great difficulty of respiration—a dull pain in the region of the liver affecting the point of the right shoulder—the spleen enlarged—the legs œdematous—urine common in quantity, but very red, and without sediment—frequent epistaxis, with blood highly inflammatory.

Bleeding and blisters with their various coadjuvants were liberally used for the first week without any evident amendment, and as he was now supposed to be in a state of preparation for mercury, the calomel was given combined with squills. But before this had time to affect the system, he unexpectedly sunk surprisingly, and was justly considered hopeless by all his friends. The cough was very severe and dry, his breathing difficult, his pulse small, weak, salient, 140 in the minute; his whole appearance was that of a lost man. He was supported by the steady use of nourishing diet, and moderate internal, with powerful external stimuli; in two days the fumigations took effect, his mouth became sore, and a striking amendment appeared in his whole constitution. The salivation was continued by using the blue pill, and though the disease developed itself in a universal dropsy, he was carried safely through all his maladies and restored to robust health.

In this case the patient was sinking rapidly under an inflammation of the lungs, liver, and probably of other internal parts, and no medicine with which we are acquainted, the mercury excepted, could have been of any avail, nor do we believe that any other method of using it would have been successful. If it be said that calomel might have been used sooner, we may reply, that the morbid action was so high as to resist its salutary operation. When at last it was determined that mercury was the only remedy, the patient fell unexpectedly into such a state of collapse that calomel could not have been given without the utmost danger of a fatal catharsis; nor in fact would there have been time to obtain the specific operation of this or of any other of the common preparations. The poor man was ready to sink under a severe inflammation with incipient effusion, and nothing but the prompt operation of mercury could have arrested this precipitous disease, and prepared the system for the recuperative powers of nature.

Case II. Thomas, son of James Glydewell, three miles north of Northumberland, was seized in the winter of 1823, with bilious or bilioso-nervous colic, which was then almost an epidemic in our neighbourhood. While he was taking calomel and opium for the two-fold purpose of procuring comfort and exciting salivation, a severe purging of bloody slime took place, and reduced him in one night almost to the point of death. We found him in the morning nearly without a pulse, with the catharsis still going on, while the system was not the least affected with the specific influence of mercury.

Opium was given freely, and many stimuli used with the utmost diligence, among which were tinct. of cloves—comp. tinct. of bark—frictions with external heat—soup, and arrow-root. The mercurial fumigations were used by my own hands, for I did not leave the house during eight hours, as the patient was a young man of no little importance to his poor and laborious parents. But he gradually sunk till at midday he was without a pulse at the wrist, and at four o'clock his legs were cold. We now left him perhaps two hours, while we went half a mile, to open the body of another patient recently dead of the same disease, and upon our return we found him still sinking and laboriously engaged in giving valedictory charges to each member of the family. This exertion we presumed would soon cut his last thread, and therefore we left him—but with strict injunctions that he should be faithfully stimulated and nourished till they might find him certainly dying.

The next morning we rose by daylight, in order to expedite business and save time for opening the body. Far different was his fate. An old neighbour came smiling to the door at this early hour with the welcome but mysterious news that Thomas was better. The fact was that the mother, between hope and despair, persevered with the stimuli, and in the course of the night the mercury took effect and saved his life.

We shall not add more cases, as we have never taken daily notes of diseases, unless in a very few instances; having depended more upon the recording of general results and the establishment of general principles. We have used the remedy in twelve cases with all the advantages that we could wish to derive from it, nor did we excite an excessive ptyalism in one single instance. It failed only in the case of a maniac, but here we believe it was not fairly tried. We have often lamented our omission of this medicine and our dependance upon gentler measures, but never have regretted the use of it in a single case.

We must here caution the reader against imputing to us the empirical folly of bringing forward a remedy which is to be infallible in the case of every dying patient: like all things human, it will often fail, even when tried under promising circumstances. All that we pretend is this, that it will sometimes succeed in affecting the system with mercury when other means would fail; and that, consequently, it renders one important indication in medicine, infinitely more facile and certain than it has hitherto been. Nor let any one suppose that we presume to have established this method as infallibly useful and imitable. Many unobserved and even inscrutable circumstances may have concurred in promoting the favourable operation of the mercury in our various cases, as a fortunate coadjuvancy of things unseen may for a time give a medicine some factitious reputation, which a multiplied experience will generally diminish or entirely nullify—a mortifying fact that has long been known in our tentative science.

Against the use of ptyalism in fevers much clamour has been raised, and, as stated above, we confess ourselves most vehemently hostile to the practice, whenever gentler measures will ensure our safety; but we cannot join in that indiscriminate reprobation of the practice in which some physicians find too much delight, and thus inculpate their own understandings as well as degrade and bring into suspicion the whole science of medicine. Dr. Hosack, in one of his reports to the governors of the New York Hospital, does fairly represent that mercury is a dangerous and highly mischievous remedy. When speaking of his typhous patients, he says, "they recover without that injury to the constitution, and that liability to rheumatism and other inflammatory diseases, that we frequently observe in those who have undergone the operations of mercury."*

We shall bow with becoming submission to such high authority, but at the same time shall observe that every careful practitioner must have startled at this passage, and have begun to look around among his patients with no little anxiety, to ascertain whose constitution he had *injured*, and whom he had endowed with a *liability to rheumatism and other inflammatory diseases*. There is already too much prejudice in the world against this medicine, and physicians would confer respect on the profession by endeavouring to diminish it; while by thus holding it up to the blind inquisition of the reading community, they will weaken public confidence, and greatly derogate from the honour and utility of the healing art. The public ought to be apprised that almost any medicine is variously dangerous in the hands of ignorant temerity; but that learning and honour may be confidently trusted with the most powerful agents in the materia medica. As far as regards our own observations, whether confined to one particular practice or extended occasionally into that of other physicians, we have never seen any of these evils result from mercury. But at the same time we have fortunately had it in our power, through the long-continued use of the suspicious mineral, to relieve patients of *chronic rheumatism* or something similar though perhaps worse—the unhappy result of the non-mercurial practice in syphilis. So pitiable has been the condition of some wretched beings who have come from seaports, and from under the care of the anti-mercurial doctors, that we can no longer read of their opiate, and acid, and golden recipes, without some feelings of reprobation and contempt.*

---

* Appendix to Thomas's Practice and Eclect. Rep. x. 274.

---

* [We believe our coadjutor has viewed the cases to which he alludes, through the medium of strong prejudices. For our own part, at least, we lament that the non-mercurial practice in venereal disease is not more generally adopted. We certainly have not met with any case, properly treated upon that plan, in which we have had reason to believe that the patient suffered from mercury having been withheld, and we certainly have met with not a few in which it has been unavailing, and many in which the most distressing consequences have followed its exhibition.

"Mr. Rose has published in the Medico-Chirurgical Transactions, an account of 120 cases cured without mercury in his military practice during a year and three quarters. Mr. Guthrie successfully treated 100 cases in the same manner, and has seen notes of 400 more cured without mercury in the different hospitals. Dr. John Thomson relates 155 cases similarly cured by him in the Consolidated Depot Hospital at Edinburgh Castle. Mr. Hennen has published 105 equally successful cases, 20 of which were cases of true Hunterian chancre. And in a general investigation, undertaken by the surgeons of the British army, it appeared that, out of 4767 cases, 1940 were cured without mercury. Of these, 96 had secondary symptoms, but every man was fit for military duty immediately on his dismissal from the hospital. The average period for the

Ptyalism, as we have stated above, is a foul. painful, odious remedy, and never to be used when the safety of the patient is not at stake, or when gentler means will almost certainly succeed; but a little present distress is never to be weighed in the balance against certain danger, or even against lasting pain. The highest authorities in medicine have clearly shown, that, in every species of fever many patients are saved by mercury, who would be otherwise certainly lost; and this fact alone is a sufficient argument for our present purpose, since, as we have already said, we are not inventing a new indication in medicine, but a new and more successful method of fulfilling an old one. Whoever believes himself ready to perish, will gladly lay hold of this means of safety, however uncomfortable; let us then do unto others, as we would they should do unto us, and fly to mercury as the last hope. It will not only avert impending danger, but in many cases it will remove old obstructions, break up morbid associations, create new capacities of life, and almost regenerate the whole man: it is, with the solitary exception of cinchona, the greatest medical blessing which a benevolent Providence has conferred on his suffering creatures.

---

cure of primary symptoms was 21 days, and of secondary 36 days. The remaining 2827 were treated with mercury: 51 of these had secondary symptoms, and two men were rendered unfit for the service. The average period for the cure of primary symptoms was 33 days, and of secondary 45. The foregoing cases, it is stated, include not only the more simple sores, but also a regular proportion of those with the most marked character of syphilitic chancre. On a survey of the results it appears, that under the non-mercurial treatment, the disease more frequently advanced to the secondary symptoms—but that, on the whole, the average time of cure, both of primary and secondary symptoms, was less than it was in the cases where mercury was employed."—*Bigelow's Sequel.*

For further proofs of the efficacy and safety of the non-mercurial, or physiological practice, in syphilis, we refer to the valuable paper of Dr. Harris, in the North American Medical and Surgical Journal, vol. i. p. 38—to the work of Devergie, for a notice of which see our last number—to the elaborate treatise of De Brus, a review of which will be found in our present number—and the article Mercury in Chapman's Elements of Therapeutics I. H.

ART. X. *Case of Gun-shot Wound of the Leg, in which five-sixths of the structure at the seat of injury was destroyed, successfully treated, the limb being preserved.* Reported by JAMES A. WASHINGTON, M. D. House-Surgeon of the Pennsylvania Hospital.

CHARLES ULARY, aged eleven years, was admitted, under Dr. J. R. BARTON, into the Pennsylvania Hospital, on September 1st, 1827, with a recent gun-shot wound of the leg. A fowling-piece, which he had handed across a ditch to its owner, having been accidentally discharged, as soon as received, with its muzzle within two feet of him, its contents had passed entirely through his left leg, just above the ankle joint, the joint happily escaping uninjured. He was brought into the institution, before any application had been made to the part, but not until a few hours had elapsed after the accident, as he resided at the distance of four miles from the city. The wound presented the appearance of a large, ragged perforation, passing through the limb horizontally, and from side to side. The orifice on the inner side of the leg, was at least three inches in its vertical, and two inches in its horizontal diameter; but the size of the outer orifice was rather less: their margins were irregularly lacerated, as was the whole surface of the wound. The contents of the gun having passed through the limb, from so short a distance, a very considerable destruction of the part had taken place, and it was estimated that five-sixths of its structure, at least, had thereby been carried away.

The parts removed consisted principally of more than an inch of the tibia and fibula, their fractured ends, above and below, being that far removed from each other; also of the corresponding portions of the tibialis posticus and the long flexor muscles of the great toe and the small toes, as well as of the fatty matter interposed between them and the tendo Achillis. The skin covering the limb at the seat of injury, had, of course, been in a great measure destroyed. The parts that were left in front of the wound, consisted of a sound strip of skin about two inches in breadth, and of the muscles which it covered, the peroneous tertius, tibialis anticus, and the long extensors of the great toe and the small toes, which had not been materially injured: behind there remained the tendo Achillis, with another sound strip of skin, but barely sufficient to cover it. The long and the short peroneal muscles, situated on the side of the leg, and whose tendons pass together, behind the malleolus externus, had also escaped without being seriously injured, and were seen crossing about the middle of the external orifice of the wound, the silvery hue of the tendons being still preserved. But what was the most important of all is, that the anterior tibial artery was found uninjured, in consequence of that portion of the periosteum covering the anterior part of the tibia being left, though but barely, and with a film of bone attached to it, here and there.

A consultation having been held between the attending surgeons of the hospital, Drs. Barton, Hewson, and Parrish, they determined, in consequence of the youth of the boy, and of the circulation being still carried on by the anterior tibial artery, as was manifested by its pulsation and the warmth of the foot, to attempt to save the limb. Although from the lacerated character of the wound, the hæmorrhage was rendered much the less profuse, particularly from the large vessels, yet from the extensive surface that had been exposed, sufficient bleeding had taken place to produce a very decided effect upon the system. When the boy was admitted his countenace was extremely pale, but reaction had, in a measure, ensued, and his pulse possessed tolerable force, though very quick in its beat.

The immediate application to the wounded surface, which was suggested by Dr. Barton, and had never before been used, as far as we know, consisted of wheat bran. His limb was placed upon a soft bed of cotton previously spread over with bran, after being protected by oilcloth, in a kind of box, open at one end and above, and with side lids attached to it by hinges, and used for fractured legs in the hospital. The foot which had before laid upon its outer side, from the very considerable destruction of the continuity of the wounded part, being properly adjusted, the cavity of the wound was filled with the bran, and the limb for a distance above the wound, as well as most of the foot below it, enveloped in the same article. When the character of bran is considered, it will be understood how very well adapted it is to the dressing of a wound of this nature. It serves to absorb the discharge, and is thereby, in part, converted into a very good poultice, while by the compression thus induced upon the wounded surface, it will prevent any inordinate hæmorrhage, at least in a case so favourable to its application as the present. For the first five days the bran was only partially removed, and more fresh bran applied—so that the great pain that would have been produced by daily moving the limb to dress it, was obviated.

On the sixth day, the boy being lifted towards the foot of the bed, in order that the box might project beyond it, and over a tub placed beneath, the wound was entirely cleansed, by means of a syringe, with warm water, the bran being easily washed away. On this day, the first after the accident that the wound had been fully exposed to view, its surface, which had been killed by the severity of the injury, presented a darkish aspect, owing to the sloughs not yet having separated. Considerable swelling had taken place at the part, in consequence of the inflammation which had supervened. The discharge which had as yet been seen, appeared principally to consist of a thin serous exudation of a reddish hue: only a slight trace of pus, having up to this time been observed.

By the eighth day, the upper portion of the wound, or that nearest to the knee-joint, had cast off its sloughs, and the exposed granulations presented a very healthy appearance, while the sloughing from the lower portion, or that nearest the foot, had not taken place: this difference being obviously attributable to the diminished circulation in the lower part of the wound.

On the fourteenth day the wound exhibited a healthy appearance, but the granulations were less florid than previously. On the twenty-fifth day the cavity of the wound was observed to be considerably diminished by the luxuriance of the granulations, and the contraction that had taken place in the limb: the loss of bony structure, allowing it to be thus diminished in length. On the twenty-eigth day, the cavity was still more reduced in size, and the fragments of the tibia had come into contact, from the contraction of the limb above noticed: the upper fragment was spear-pointed, and consisted of compact structure, while the lower fragment presented several points or a very uneven surface, and consisted of the cellular structure, of which the extremities of the long bones are formed. In comparing the legs together, it was found that the injured limb had been shortened rather more than in inch. The upper and lower fragments of the fibula, were also found in contact, but rather less of this bone being removed than of the tibia, it will be perceived that a slight curvature must have taken place at the seat of injury, in order that the fragments of the bones might thus meet. This bend of the limb inwards, was however but slight. In consequence of this disposition of the parts, the upper fragment of the fibula projected too much outwards, and from its outer surface being denuded of periosteum, its white appearance rendered it very conspicuous. Although the fragments had now come into contact and jutted against each other, still the foot required support, to prevent its falling to one side.

On the 9th of October, five weeks and a half after the accident, the process of exfoliation was, for the first time, observed to have been completed in a part of the exposed surfaces of bone. It has been mentioned that the lower fragment of the tibia consisted of spongy structure, and in a portion of its exposed surface, though the supply of blood to it, was, of course, from its situation and the nature of the accident, much less abundant than to the more compact structure of the upper fragment, yet exfoliation here first occurred: a circumstance ascribable to the greater vascularity of the spongy structure of the bone.

From this time to the present date, the process of exfoliation has gone on, and is now very nearly completed: bits of bone thus cast off, or loosened from the living structure, have from time to time been removed. The depth to which the surfaces have exfoliated has in no part been great. The formation of osseous matter has also taken place so as to unite the fragments above and below, and for so long a time, and to such a degree, that for a month past no motion at the wound could be perceived.

It was mentioned in the previous part of this paper that a portion of the anterior periosteal covering of the tibia, with small scales of bone attached here and there had been saved. This remnant of periosteum has been a prolific source of the osseous secretion. There is correspondent to this portion, a protuberance consisting, principally, as indicated by its hardness, of osseous matter, while the parts of the tibia above and below appear to be very nearly in their natural relation to each other as regards direction. The cavity of the wound has for several weeks been filled up, with the exception of a sinus, in which a small probe may be introduced, that is left for the exit of the bits of bone which are from time to time cast off by exfoliation. As this process seems to be almost entirely completed, it is presumed that this sinus will shortly close. The foot and whole limb is somewhat swelled, and by measurement the circumference at the wound is twice that of the correspondent portion of the other limb. This difference will be in a great measure diminished after the cure is completed, and he shall have regained full health.

The injured limb is shortened nearly one inch and a half. The curvature of the limb inwards is only slight, but to overcome this tendency as far as was practicable, an outward splint and a roller were, during the progress of the case, used for a time, but are now laid aside. The application of bran is still used alone, with the exception of a roller gently applied over the whole limb, from the toes to the groin, intended to counteract the disposition to œdema, that has been particularly observed since the discontinuance of the pressure used during the application of the outward splint.

Having thus presented, for the sake of perspicuity, a connected view of the leading features of the case, as regards the wound itself, it will finally be proper to notice the sympathetic disturbances of the system, induced by so extensive an injury, and to give a general view of the treatment pursued in consequence of such disturbances. As in this case tetanus was particularly apprehended, in the commencement, it was deemed proper to guard against it by the repeated exhibition of opium, so as to keep the system in a measure under its influence; and after all danger of tetanus had passed over, it was still exhibited for some time in sufficient quantities to mitigate the irritation which the wound was calculated to produce in the body generally, and more particularly to enable him to rest well at night. During the first three days a symptom occurred of rather an alarming nature, as it was uncertain whether it might not be the forerunner of confirmed tetanus, but it may be doubted whether it should not rather be attributed to the prostration consequent upon the hæmorrhage from the wound, than to the irritation upon the nerves at the seat of injury. During the time specified, the flesh or tendons at the wrist were observed to be affected with subsultus, but fortunately on the fourth day this symptom disappeared, and was not noticed afterwards.

The sympathetic fever that occurred after the accident, was at no time of a very intense character, and hardly demanded any thing more than an attention to the state of the stomach and bowels. After copious suppuration had taken place, it considerably abated, and by the thirteenth day it had decidedly subsided, though some irritation still existed, and which has more or less continued, until the present time, as has been all along manifested by the too great frequency of the pulse.

The sympathies of no part of the system, with the wound have been greater than those of the digestive organs, particularly of the stomach. During the first two days, it ejected almost every thing that was taken into it; afterwards it became more settled, but still, for a considerable time, it would occasionally eject its contents. The appetite, though it remained feeble for a long time, yet after the suppurative process took place, it more manifestly improved, and had become tolerably vigorous, when it became almost entirely subverted during the continuance of a diarrhœa that supervened and which will be presently noticed. During the first six weeks, the bowels were obstinately costive and were hardly ever moved, except in consequence of the administration of an injection, or of some laxative medicine. This torpid condition of the bowels, no doubt extended also to the other abdominal viscera, as the liver and pancreas. In the interval above mentioned, colicky pains in the abdomen, of a very severe nature, accompanied by a tympanitic condition of the bowels as well as costiveness, were upon two different occasions, the seventeenth and twenty-first days after admission, experienced, but subsided shortly after free evacuations had been obtained by injections, and the administration of anodynes. About the first part of the sixth week, the diarrhœa alluded to previously, occurred, and it continued, more or less, for upwards of two weeks, or until the latter end of October. It had a very decided effect over his general health. The powers of the stomach became greatly enfeebled, nutrition much impaired, and very great emaciation induced: in fine, our patient was brought almost to the very verge of the grave. From the character of the discharges, it was very apparent, that the irritation affected not only the bowels, but also the liver. The means used for counteracting the diarrhœa, consisted principally of castor oil, alone or with laudanum, given internally, of antacid astringents with laudanum, and of demulcent anodyne injections. Since the first of November, his bowels have continued, generally, in pretty good order, and his digestion has gone on as well as could have been expected. His limbs are still small, though not near so much emaciated as they were, in consequence of the diarrhœa. His general strength is increasing, and for a month past he has been able to sit up, and to be moved about the ward, in a chair with wheels attached to it: the weather not permitting him to be taken into the open air, as it has been very disagreeable for several weeks past.

Hospital, 31st December, 1827.

Art. XI. *Observations on the inefficiency of the cathartic powers of Rhubarbarine, with some Remarks on the different varieties of Rhubarb.* By George W. Carpenter, of Philadelphia.

THERE is perhaps no maxim more generally admitted, than that "there is no rule without an exception." Among the discoveries and researches in the various departments of arts, science, and manufactures, there is occasionally found one which, (either from being overrated by too hasty an observation, or defective from difficulties in the manufacture or construction,) fails to support the characters assigned to it by its discoverer, or by those who may have described it. When an instance of this description is discovered, any one having full evidence of the fact, should consider it his duty to point out the error.

Vegetable chemistry has added to our materia medica a catalogue of highly useful and important remedies, among which stand conspicuous, quinine, cinchonine, morphine, strychnine, cornine,[*] piperine, &c. all of which have continued after a full and extensive trial to support the characters originally assigned them, with the exception of *one*, which is the subject of the present communication.

Disagreeable as it is for me to criticise the writings and discoveries of men, eminent in the profession, yet for the promotion of science, and the propagation of truth, I shall not hesitate to do so, and feel confident that in this I shall meet with their approbation, inasmuch as the error was altogether inadvertent, and their object exclusively, to give the article its true and real characters.

A chemical principle discovered by M. PFAFF, and also prepared by M. NANI, a distinguished chemist of Milan, has been obtained from the rheum palmatum. M. Nani denominated this principle sulphate of rhubarb, which name it still retains. M. Nani reports the article to be cathartic in doses of a few grains, and to possess many advantages over the rhubarb, from the circumstance of its possessing an uniform activity, while the different kinds of rhubarb have qualities so various, that in many cases the ordinary doses are very uncertain, &c. &c.[†]

From the high commendation of this medicine, I was induced, at the instance of several of the faculty of this city, to prepare some of the article, as there had not yet been any received in this country. I accordingly adopted a process founded on that of Nani, but with some modifications, and published my formula with observations in the Philadelphia Journal of the Medical and Physical Sciences, and in Silliman's Journal—from which it was translated and inserted into the Bulletin des Sciences Medicales, for April, 1826, with some editorial remarks. Although I feel bound to acknowledge that I was the first to introduce this article in Philadelphia, and have sent a considerable portion to physicians in different parts of the United States, I must say, in justice to myself, that my province was exclusively confined to the preparation of the article—its modus operandi was submitted to the judgment and experience of those who were engaged in the practice of medicine. My paper went to press early after I had prepared the article, and before I could collect sufficient facts to justify any conclusions as to its effects in the hands of those who had first employed it in this city; my observations, therefore, in relation to its virtues were upon the authority of M. Nani, and although modified a little, and commending less its cathartic energy, were, nevertheless, greater than it merited, and further experiments have warranted.

---

[*] It is much to be regretted that the cornus florida should yield the cornine in so minute a proportion as to prevent the discoverer from supplying the demand. This medicine has uniformly supported the character and description given by my friend, Dr. S. G. Morton, and the author can produce testimonials of the highest authority from different parts of the United States corroborating this statement, and furnishing additional proofs of the efficacy of the cornine in the treatment of intermittents.

[†] See Bib. Univer. July, 1823, also Silliman's Journal, vol. 7, page 385.

The physicians who first employed this medicine were so disappointed with its activity, that I was apprehensive of having failed in some part of the process for its manufacture. I therefore prepared it with great care several successive times, both according to the formula of Nani and my modified process, but with the same result; in order to prove positively there was no defect in the manufacture, I sent to Paris and procured it of the manufacture of Pelletier, which was found to be equally feeble, if not more so, than that which I prepared—proving beyond question that the powers of the rhubarbarine had been much overrated. That manufactured by Pelletier required a larger dose than the extract of rhubarb prepared according to my formula in the Philadelphia Journal of the Medical and Physical Sciences. I have taken several times twenty grains and upwards without its producing a cathartic effect.

The rhubarbarine resembles more an extract than any of the vegetable principles. It is solid, dark brown, opaque, possessing the odour of rhubarb, and a taste slightly nauseous and bitter, it is deliquescent, and very soluble in water, alcohol, and æther. I cannot consider this to be the active principle of rhubarb, as a considerable portion of cathartic matter is retained by solution in the water, from which the rhubarbarine is precipitated. The term sulphate of rhubarb is an extremely improper application, as there is no sulphuric acid in its composition. The sulphuric acid first employed in the acidulated decoction is entirely decomposed by lime with which the rhubarbarine is precipitated perfectly uncombined with acid, it is then taken up by alcohol, separating it from the sulphate of lime. The alcohol containing the rhubarbarine is then evaporated until the latter is obtained in the form above described. It is evident therefore, that from this process there can be no sulphuric acid in its composition, and that the term sulphate of rhubarb is not applicable. I several times used the term in my former paper, as it was originally bestowed up it, and its use was sanctioned by custom and authority.

The process for manufacturing the rhubarbarine is expensive, and the product small, which renders it as costly as the sulphate of quinine, it is therefore particularly important that its true properties should be made known.

The rhubarb of commerce differs materially in activity, and great deception is practised in selecting and artificially preparing the roots, so that the same species will frequently be sold for East India, Russia, or Turkey, and command corresponding prices.

Four varieties of rhubarb are indigenous and cultivated in France, viz. the rheum palmatum, compactum, undulatum, and rhaponticum. The superiority, however, of the palmatum, has caused the cultivation of the others to be neglected or abandoned. The difference between the activity of the French and English rhubarb, and that of China and Turkey, is caused by the age of the root; the former after three years growth decaying in the ground, while the latter are not taken up until the seventh or eighth year of their growth. The China and Turkey rhubarb grows without culture in almost any situation; the French and English requires a moist soil and a particular degree of exposure, and also considerable attention in cultivation. The former possesses a colour more fixed, a stronger odour, and a taste quite aromatic and slightly bitter—the latter, a taste more mucilaginous and herbaceous, and evidently a less degree of strength. From chemical analysis, first made by Mr. HENRY, and afterwards by the celebrated M. CAVENTON,* we find that one hundred parts of China rhubarb contain seventy-four parts soluble in alcohol and water; a like quantity of the cultivated rheum palmatum furnished but sixty-four, the compactum but fifty, the undulatum but thirty-two, and the rhaponticum but thirty. Thus the rheum palmatum is proved to be the most active of the indigenous species, but is inferior to the China. It is proved that the strength of the indigenous rhubarb increases with its age, but as it cannot, from circumstances already quoted, attain the age of the exotic, it never can equal it in strength. Numerous experiments made by Dr. GEOFFROY, M. ITARD, and M. RIBES, in several public institutions of France, prove that the indigenous rhubarb is purgative, and may be substituted for the exotic, in pharmaceutical preparations, by employing one-fourth more than the latter.

* Bulletin des Sciences Medicales, Avril, 1826.

Art. XII. *Cases shewing the Efficacy of the Volatile Alkali in the Bites of Venomous Snakes.* By I. Moore, M. D. of Scrogy, Miss.

More than twenty years ago, I came to the knowledge of this remedy, and residing in a country abounding with venomous serpents, I was soon afforded an opportunity of testing its virtue.

The first case which occurred was in the month of July, 1807, in a very large, strong, healthy negro man, aged about twenty-five years. A very large rattlesnake had struck him twice on the top of his foot. I arrived one hour and a half after the bite; I found the patient lying in his master's gallery, with the dead snake at his feet, so that there could be no doubt of the species of serpent which had inflicted the wounds. He complained of violent pain in the foot and ankle, and the swelling had by this time advanced as far as the small of his leg, which he had encircled with a very tight bandage. I ordered the bandage to be removed immediately, and permitted the swelling to progress, which it did with great rapidity. I ordered the wounds, (which had bled freely,) to be well washed with warm water, and applied a pledgit to them wet with the volatile spirit, and at the same time gave him a tea-spoonful in a wine-glass of cold water internally. The pain continued without any abatement, and the swelling advanced rapidly up the limb for an hour; at the end of which period, I repeated the same dose, and made a fresh application to the wounds. In half an hour he declared the pain had entirely abated, and the swelling, which by this time had progressed above the knee, was arrested and went no further—in a few minutes the patient fell asleep. I then left him with directions if the symptoms recurred to call me again—if not, to apply a bread and milk poultice to the wounds at bed time. I found him next day free from pain, and the swelling almost entirely subsided. The wounds suppurating, I directed them to be dressed with basilicon, and in three days he returned to his usual labour.

The next case which I shall select, was of an African negro man, of low stature and strong constitution, about thirty years of age. He was bitten on Sunday morning about ten o'clock on the wrist by a mockasin, which from my experience, I pronounce much more venomous than the rattlesnake.

A variety of remedies were resorted to, for in this country almost every old woman has her weed for the cure of snake-bites: and this poor fellow had been well plied with green plantain juice, sweet milk, sweet oil, gall of the earth, poplar root tea, &c. &c. I was called in on Monday morning early, about twenty hours after the injury. The wound presented a raw surface as large as a dollar, and was discharging a thin yellow sanies almost in a stream.

The limb was swelled to the utmost possible stretch, was livid, and so painful as to produce a loud shriek from the sufferer whenever it was moved. The pectoral muscles were also swelled, and sore to the touch, the face was tumid and shining, the tongue enlarged, and deglutition difficult. He was occasionally faint; the pulse obscure and intermittent, with constant nausea, and occasional vomiting. His arm was enveloped in a poultice of roasted onions from the wrist to the shoulder.

I ordered this poultice to be removed, and the arm well washed with warm water, and applied a pledgit to the wound wet with the spirit, and at the same time exhibited a tea-spoonful by the mouth in a wine-glass of cold water. I waited impatiently half an hour, and perceiving no abatement of the violence of the symptoms, I repeated the dose and renewed the application to the wound. I now watched him an hour by my watch, when he acknowledged he felt a little *easier*. I then repeated the dose, and renewed the application to the wound, and in less than half an hour I had the satisfaction to hear him declare he was free from pain—from this time he only complained of the stiffness, soreness, and weight of his limb. The constitutional symptoms did not again recur, the swelling of the muscles gradually subsided, and I saw him again in the course of three or four days, with nothing remaining but a small ulcer, which was soon healed by the ordinary applications.

The third and last case which I shall describe, was a negro boy, one of my own slaves, eleven years old, strong and healthy. He was bitten on the top of the foot by a small mockasin which was concealed in a bunch of briars. I saw the snake bite him—he drew up his foot, and said a briar had scratched him. I ordered him to the house without apprising him of what had happened—my reasons for concealing from him what had really happened, was that it would afford me an opportunity of judging whether the excessive perturbation generally evinced by persons bit by snakes has any share in aggravating the symptoms.

On reaching the house and examining the foot, I found two little scratches, with a single small drop of blood dried on each. He now. about fifteen minutes after the bite,) was crying with the pain in his foot, which had begun to swell. I washed the wounds, applied the remedy externally, and gave half a large tea-spoonful internally. The swelling progressed rapidly up the limb, and the pain became more violent. In half an hour I repeated the dose, and renewed the application, and after watching him for another hour, I had the mortification to find all the symptoms aggravated. I now gave him internally a tea-spoonful of the spirit as before, and waited another hour without perceiving any good effect. By this time the swelling had progressed almost to his body, and the pain was excruciating along the whole limb. I now repeated the dose, still confident in the remedy, but after waiting another hour, the limb was swelled to the utmost possible extent; the abdominal muscles became enlarged and very sore; he complained of a sense of stricture across his breast; his extremities became cold; his pulse imperceptible at the wrist; the whole body covered with a cold clammy sweat, and his respiration quick and laboured.

It was at this stage of the case that I suspected the quality of the medicine. I despatched a messenger instantly to my friend, Dr. LEYBOURNE, who sent me a bottle of the spirit which had never been opened. I gave the little sufferer a large tea-spoonful, and repeated it in half an hour. It was with great difficulty he swallowed the second dose, but I had the gratification, in thirty minutes afterwards, of witnessing an astonishing alleviation of the patient's sufferings, the pain gradually subsided, his breathing became natural, the circulation was restored, his body and limbs became warm, and in a few minutes he fell into a sound sleep: he awoke entirely free from pain, the swelling gradually subsided, and in a few days a small sore at the seat of the bite only remained.

Fourteen other cases of the bites of rattlesnakes and mockasins, in which the character of the serpent was positively known, have been treated under my own eye within the last twenty years, in all of which the symptoms, mode of treatment, and results have been so similar, that a recital of them would only be a repetition of what I have already written.

As every thing depends on the quality of the medicine used, I will only add, that which I have used for fifteen years, I have obtained of Mr. CHARLES MARSHALL, Druggist, Market street, Philadelphia. It is a limpid colourless fluid, which he marks *Liquor Ammoniæ Fort.* I would recommend practitioners to order it put up in two ounce phials, sealed. When sent out in pint or quart bottles, every time it is opened, it parts with more or less of its ammonia, becomes carbonated, and hence inert and useless, as was the case in that which I used in the third case recited, and which had very near proved fatal to the little patient.

ART. XIII. *On the uses of the Lymph.* By JAMES MOULTRIE, JR. M. D. of Charleston, S. C.

AMONG the phenomena which the operations of organic life are constantly presenting to our view, none seem more calculated to excite curiosity, than those which attend the formation and uses of the lymph. Setting aside the adhesive and disorganizing effects which are daily attributed to the proneness of this fluid to become itself organized, wherever it is lodged; there are few which seem to be so little understood, and in the investigation of which our labours have been crowned with so little success. It would be tedious, and perhaps useless, to consider all the different hypotheses which have been advanced upon this subject. The mistakes which have been so long current in the world, about this part of our constitution, as well as the light which recent discoveries in anatomy and physiology have thrown upon it, will justify me, however, I hope, in prosecuting the inquiry a little further; more especially in relation to those phenomena, which appear to depend upon the combination of it with the chyle in the thoracic duct.

A minute examination of the œconomy of nature evinces that all her movements in sustaining the organization of animals is gradual as well as progressive. Every step which she takes, either in production or regeneration, it is true, is manifested by change; but every change, it is equally true, is the direct result of that which preceded it, as it is the immediate forerunner of that which is to follow. Every part is mutually and reciprocally dependent. Nothing is abrupt and unconnected; and in the entire series of living manifestations to which each individual body gives rise, none are so constituted as not to appear as the increasing and necessary effect of a continuous train of organs and functions, which have been put into action for some common end. In the regular and progressive series which constitutes the whole *organic*, existence of each individual, no part can be omitted without bringing that existence to an immediate close, or materially impairing the continuity by which it is preserved. And to apprehend the different steps of the process, and ascertain the links by which they are severally bound, each must be separately investigated, and singly and jointly understood.

Viewed in this light, the subject under consideration is peculiarly defective; and while other functions and formations have been investigated with a precision and scrutiny approximating to philosophical accuracy, this has been generally overlooked, and passed by with a degree of apparent indifference, not easily reconcileable with the refined inductions of modern analyses. While chymifaction and chylification are thus comparatively comprehended, the combination of the lymph with the chyle has hardly elicited attention; and little is therefore known of the reason for their meeting in the thoracic duct, or the relations which they subsequently maintain in the circulating system. To supply this deficiency is the object of the present paper; and in endeavouring to do this, I shall not rely so much upon the development of new facts, as upon the new relations in which I propose to place those which have already been discovered.

It is now long since the lymph, or that fluid which is found in the lymphatic vessels, was regarded as a heterogeneous combination, composed of alienated materials of the solids and fluids, which, having served a turn in the nutrition of the body, was now on its way to the emunctories of the system, and there to be resigned to the laws which govern inorganic bodies. The investigations of a more improved physiology, have, however, opened to us new views upon this subject, and in the course of the following speculations, we shall see good reasons for believing, that so far from partaking of this effete character, it is of a highly vitalized and assimilative nature, the ultimate result of many elaborative actions, and destined like the blood, to be again and again circulated, and employed in supporting the integrity and increment of the living edifice. In the meantime I would merely observe, that the influence of the former hypotheses in keeping up our erroneous notions respecting it, is obvious and inevitable: and there is little doubt in my mind, that it has contributed, as much as any other circumstance, in promoting and preserving that obscurity by which our progress towards a knowledge of its true origin, nature, and destination has been so long retarded.

Assuming for the present the truth of the latter hypothesis, in comparing this fluid with the chyle, we are forcibly struck with three circumstances: 1st. The relation of contrast which they sustain: 2d. Their immediate union, nevertheless, in the thoracic duct: And 3d. The intimacy with which they are afterwards united with the residuary blood of the system, and distributed throughout the body.

In examining these occurrences according to the natural order in which they arise, we have presented to us a catenation of changes and modifications, which from the uniformity and apparent mutual dependence which they exhibit, awaken in conformity to a law of the understanding, that universal conception of relation, to which in analogous instances has been appropriated the phrase "cause and effect." Now in tracing out the different stages of this catenation, and describing the phenomena of the sequence, in the doing of which consists the very act of philosophizing, we have incurred one of the only two fallacies, to which, according to a late celebrated writer, every system of philosophizing is liable. Nothing it is true has been *added* to make the catenation complete, which does not really belong to it; but a part of the sequence has been *omitted*. The statement of which is an essential part of it, and in which our labour now chiefly lies. Books on physiology are ample enough in their descriptions of the phenomena of chymification, sanguification, &c. but greatly defective in their accounts of the changes which are produced by this conjunction in the receptacle or chyliferous duct, and the inductions which depend upon a consideration of the prior and posterior circumstances attending this event, seems never once to have occurred to them. In their ardor for system-making, this has been wholly overlooked; and without the patience of protracted observation, they have passed at once, in a single leap, from an examination of alimentary digestion, to treat of the phenomena of sanguification, aeration, &c. In this particular, silence is nearly profound, and it seems to me, is either attributable to the erroneous views which have hitherto been entertained of the functions of the lymphatics, or the still more erroneous belief which was held concerning the character of the lymph. But to proceed—

The lymph, according to our assumption, and the acknowledgements of the present day, is a highly animalized fluid, fully endowed with the principle or property, which ever it may be, of life.

The chyle, on the other hand, anterior to its admixture with the lymph, is a *non*-animalized fluid, possessing none of those unequivocal manifestations which entitle it to be considered as vivific.

These *vital* and *non-vital* fluids enter into direct combination in the thoracic duct, to which they are carried by their respective vessels, and are afterwards more intimately combined as they are circulated through the heart, lungs, and capillary vessels.

Previous to this combination they maintained their respective characteristics; the former, like the arterial blood, which it is said strikingly to resemble, being uniformly homogeneous; the latter, like the materials out of which it is formed, as uniformly the reverse.

After it, however, their individualities seem no longer to exist, and their relations become materially altered. A new product is formed, complicated of each of them, is admitted into the body, circulated in its vessels, made to harmonize with its susceptibilities, and hourly supplies the common pabulum, by which its wants and necessities are satisfied. The lymph, insusceptible apparently of a higher change, is still separable from the state of combinedness into which it is placed, but the chyle being materially altered, is no longer distinguishable, and except, perhaps in some instances where this process has been incomplete, and assimilation therefore imperfect, is no longer to be reclaimed, nor to be discovered in that state of primordial individuality, which belongs to its chyliferous origin, it has in fact acquired new properties and new relations, and being essentially vitalized, bids defiance to all the known energies of our chemical and physical expedients.

If any two fluids, as opposed as these are in the possession or negation of the principle of vitality, had been suddenly brought together in a capacious reservoir—like the stomach, or bulging conduit—like the duodenum, instead of being silently transmitted, and gradually combined in so recondite a receptacle or tube—as is the thoracic duct; and their incorporation observed to be followed by a change so immediate and remarkable as that from inanimation to vitality, and the whole experiment conducted in such a way as to exclude, with the like hermetical closeness, every thing calculated to disturb the regularity of the process; is there a doubt but that some final cause would have been found for this contrivance, some positive use been attributed to the former, or the change effected in the latter been ascribed to the assimilative agency of the former? There can be little doubt, I think, that the phenomena would long ago have elicited observation, and the results satisfactorily explained. And yet, upon a review of all that takes place here, there appear to be no ideas forming this relation of the union of the lymph with the chyle, which do not also form that of the union of the gastric juice with the food, or the chyme with the bile, or the venous blood with the air in respiration; nor is there any thing which suggests to our minds, the belief of the relation of cause and effect in the one, which does not also in the other. We say, without hesitation, that the mixture of the gastric juice and matter of alimentation forms the chyme; the chyme and the bile, the chyle, &c. And why? It is evident that it is because the events follow one another in a train of priority and sequence which our minds are so constituted as thus to apprehend. And why not then, that the mixture of the lymph and chyle form another product, the nature of which is so different from either of its constituents before combination? or since the nature of the chyle has been changed, and an inorganic has been converted into a living fluid, that it is the province of the one which possesses vitality to impart it to the other which does not? If there is no difference in the relation which they severally manifest, there can be none in the inductions to which they lead; and there can be as little reason for suspending our confidence in the rules of philosophical criticism in the one, as in the other. The occasions are the same: the connections are the same; and the inference is precisely the same as that to which we have frequently before given our unreserved assent. It is of little consequence, really, how the manner of stating it is managed, provided the phenomena are brought into view in the precise order in which they arise: whether by a simple enumeration of all the prior and subsequent conditions. or, as in the case before us, by ascribing to the menstruum, which is *first* in possession of the quality to be imparted, the efficacy of a cause, and thus to confer upon it the natural agency of being instrumental in transmitting it to that which is *last*. Viewed in this light, one of the most important of its uses is undoubtedly that of animalizing the chyle, and preparing it for those ulterior depositions which it is destined to undergo. But the truth of this opinion will beget further confidence, when the facts and arguments which remain yet to be adduced shall have passed under review. In the mean time, however, I cannot avoid noticing the entire correspondence of this relation, with that of the order which connects, by a similar principle of association, the events of the moral and physical universe.

To those who have not minutely reflected upon the spirit of the inductive philosophy, it might be thought necessary, in order to establish the truth of this opinion, that I should prove the lymph to be possessed of a *superfluous* quantity of life. It is evident, however, that such a requisition implies an impossibility, and is, therefore, illegitimately assumed. As we are ignorant of the nature of the living principle, it follows that any endeavour to discover, or to form a conception even of its supposed action in imparting and receiving, must be altogether futile; for it cannot be measured or apprehended by the ideas of quantity and metastasis which our understandings derive from reflecting upon the mutations of matter. It may be observed, however, in relation to those who may think the proofs of this redundancy an important preliminary, that I know of no way of affording it, than by referring them to the very manifestations, for the production of which the proofs of that redundancy are required. It is in this way only we are able at any time, to prove a necessary redundancy on the part of the parent to procreate his oft numerous progeny; of the embryo itself, to grow to the magnitude of the new-born animal; or of this last, to attain the powers and developments of ripened maturity; and the error upon which this mode of reasoning is founded, becomes still further evident by a simple recital of the absurdities to which it leads; for upon this principle the atmosphere must also abound with it, otherwise the more exalted vitality of the arterial blood than the venous, must also be shown to depend upon some other cause than that simply of respiration; and even this required redundancy itself, whenever and wherever established, must be proven to depend upon some other previous redundancy of underived excess, existing in time and space, where our requisition must ultimately stop.

Very different is the nature of the question in relation to the qualities of that fluid. The effect which the doctrine of its effete character, and that of the absorbent agency of the lymphatics, have had in keeping out of view the phenomena now under consideration, and the intimate connection which the solution of these phenomena has with that of the hypothesis assumed, render it necessary that these doctrines should be subverted, and that this last should be established upon the most unequivocal basis. Notwithstanding the instances in which foreign articles have been found distinctly intermixed with the contents of these vessels, the opinion, I am disposed to think, is susceptible of the highest degree of presumptive reasoning, as well as of experimental elucidation, that the lymphatics are not the *natural* absorbents of the system; and that unmolested by artifice or disease, they are not *habitually* concerned in the daily decomposition of the body, or in the removal from it of any of its worn out or superfluous particles. Of all the changes of opinions which the lights of recent experiments have produced, none I apprehend, are so likely to be universally and irrevocably fixed, as that which regards this function as the exclusive and *healthy* office of the veins. Of the whole number of experiments which have been instituted for the purpose of trying this question, it is not among the least remarkable of the result going to establish my position, that so few exceptions have occurred wherein any of the substances used have found their way into these vessels, while nearly all of them have gone directly to establish the fact, that the veins and not they, are the appointed performers of this tributary work. And while this belief is in this manner directly supported by the fact, the opposite doctrine is contravened by the fact also, that the lymph throughout the system is always of a homogeneous nature, and not that heterodox of particles, which the older supposition imagined. It is on the contrary so nearly allied to arterial blood, particularly in that of its identicalness, as with difficulty, except in colour, to be distinguished from it; and like it will be found to be subjecting itself to the laws of the vital chemistry once again, to subserve the ends of nutrition and being. Upon the idea of its complicated derivation, we should have a right to expect directly the reverse of this to obtain; and as the particles are ever receding from the control of the vital energies, from their first entrance into the radicles of these vessels, and proportionally losing the ability to preserve their homogeneous affinities, to see them manifesting like the unassimilated chyle, the crudities which attend the diversity of its origin. The vitality and homogeneity, however, which under all circumstances it retains, leave us no other inference, as long as past exrience shall continue to be the guide of our present and future speculations in physiology, that these are characteristics which could only have been acquired by the most elaborate operations of organic life: and declare it in terms the most unequivocal, that it must have passed simple or combined, once at least through the lungs. Whether or not this unvarying character extends into the minutest ramifications —or seeing that the lymphatics extend far and wide throughout the system, and that each radicle has an appropriate destination, whether or not it is first adulterated with the matter of decay taken from each neighbouring territory, and then instantly cleared from this pollution by the filtering processes of the glands, or whether in the performance of this filtration there are two sets of vasa efferentia, the one destined to carry the heterogenous matter to the veins, the other to the lymphatics, is not material to the question. The proposition stands which ever of these may be adopted: if the latter, perhaps, it is the more confirmed, since from it may be inferred the early and particular care, which seems to have been taken in preparing it for the end which has been assigned it. Supposing this distribution of vessels to be correct, would it not be proper to consider the former set of vessels as appendages to, or radicles of the veins, rather than lymphatics? and is not this inference warranted as well by the nature of their contents, as that of their terminations? as the arteries have different terminations than those which end in the veins, so from analogy, the veins may be expected to have different origins than those which begin in the arteries. Where the structure is so minute, and the intertexture so intimate, our investigations must necessarily be attended with great degrees of incertitude; and where differences are to be assumed upon the intermixture of colours, we cannot be too cautious how we rely exclusively upon them. Among vessels, as minute and translucent as the early lymphatics, one would imagine it an easy matter to mistake the reflections of neighbouring vessels for hues intrinsically possessed, or supposed to be possessed by them; and to believe a modification of colouring to exist where it in fact does not. We know that our own countrymen, LAWRANCE and COATES, were nearly imposed upon in this very way, in one at least, of the experiments which they had been engaged in performing with colouring articles on the lacteals; and I think their supposition of the manner in which Mr. JOHN HUNTER may have been deceived, and thus the reports of MAJENDIE come to differ with his own, by no means improbable. If then a deception can arise where the anatomy is appreciable, or can be made so to the moderately assisted eye, how much more readily may it, where the difficulties are so much greater? One thing which heightens the probability in this instance is, that if the lymph and excretory matter are contained in the *same* vessels *before* filtration—as the *vasa efferentia* are not only less numerous but larger than the *vasa inferentia*, and the colouring matter must consequently be deeper *after* separation than *before* it, the eye being keen enough to discern it in the former instance, ought more readily to have discerned it in the latter. Now my recollection does not serve me to say whether or not this is the fact; but if it is so, the inference is so obvious and necessary a one, that its not being noticed may be assumed as a presumption that it does not exist. When we remember that the volume of blood which is created in the lungs is not destined to remain therein —that the unvarying purpose of *healthy* respiration, is to *get rid* of the carbonaceous principle—and that the *proper* vessels of nutrition are not larger nor more numerous in the lungs than other structures, the powers of composition and decomposition being here balanced as elsewhere, no reason can be found why upon this principle the absorbent vessels of the lungs should more abound with this matter than those of other organs; and it seems hardly probable that an effect differing so much in intensity here, from what is found to prevail throughout the whole of the system, should be owing to a cause not universally present. If it was the *particular* office of the lungs to secrete carbon, then the black matter which is found in the said vessels, here, may properly be ascribed to the alleged cause, but as this is not the fact, any more than the skin, or that tissue in which it first makes its appearance, this instance cannot be referred to as an example or evidence, in which each lymphatic radicle absorbs from a neighbouring tissue as from a territory of its own, the matters it contains. And with regard to the bilious discolourings of the lymphatics of the liver—another of the most remarkable of the instances which have been supposed to establish the theory—besides that the manifestation of the presence of bile is not stronger in the blood of the hepatic veins or ascending cava, than that of the rest of the body —it may be inquired if the phenomenon seems to be a natural one, that a fluid which is ostensibly formed for *reproduction*, should at the same time be treated as *excretory*, and as such be taken up by agents whose acknowledged, and I would also add exclusive office it is to be concerned in this matter? The fluid in the *inferential* vessels, according to this hypothesis, is a product of the *proper lymph*, and the *cast off* molecules of the neighbouring tissues; now the bile in the *hepatic* inferential lymphatics, must, according to this view, be the *cast off* molecules likewise, otherwise the example does not apply; and if it does, then are we presented with the anomaly, of a fluid being at the same time both secretory and excretory. And may not the same reasonings be applied to all the other examples which have been so variously adduced? Majendie has said that the lymph is the same throughout the system, whether taken from a lymphatic vessel or the thoracic duct, and if in addition to the foregoing remarks, it is also remembered that it is an animalized fluid, the distinct formation of a distinct formative power, I think his opinion will be found to remain unaffected, notwithstanding the ingenuity of the ratiocination, by which its heterogeneous and diversified origin has been attempted to be established.

If we examine the œconomy of the veins, we shall find the reason not less cogent for believing in the doctrine of their exclusive absorption. To fulfil the purposes of nutrition, the blood must be liberated from every thing like adventitious mixture. Upon this necessity is apparently founded the institution of the depurative processes. The black blood contradistinguished to the red and the lymph, is not only more complicated in its nature, but, from the relations which it bears to these fluids, and to that of the secretions and excretions of the body, is at the same time by far the most liable to depuration from foreign admixture. Hence it may be expected, in the course of its circulation, not only to give rise to the most diversified of impressions, but under certain contingencies, to prove the most deleterious in its effects. To guard against the inconveniencies of the first, and to provide a remedy against the last, the vessels in which it circulates are endowed apparently with a modification of susceptibility, which is not less distinctive and characteristic than that which belongs to any of the specific tissues. By this their minute branches are enabled not only to take up every thing which is destined to be absorbed, but the very articles even, with which nearly all the physiological experiments relating to absorption have been conducted, and to bear with impunity, for a while at least, the varied actions of the diversified agents, to which they are normally or inopportunely exposed. They are also better qualified for the task of doing that which was ascribed to the lymphatics—removing the superfluities of nutrition, or the excesses of morbid increment. To this modification of vitality may also be ascribed their protection against an agent of known and admitted fatality, and their general adaptation as reservoirs for containing, until they can be removed from the body, the many materials, natural and adventitious, which, under a diversity of circumstances abide within them.

But as much of what has been said is predicated upon the homogeneousness of the lymph; and as this is a property, which, under the exceptions intimated, belongs also to the blood of the veins, a question may arise as to the validity of the opinion, that the exonerated particles of nutrition do find their way into it, and become one of its constituents. The answer to this inquiry is involved in that of another, and is intimately connected with the explanation of it, viz.: what is the nature of the process by which the carbon, which abounds therein, is generated, and the true relation of that substance to the animal organization? This question is an interesting one, but notwithstanding its apparent embarrassments, I am not without some hope of being able to approach its elucidation. To answer it satisfactorily, perhaps, ought not to be pretended: for to be able to trace the whole of the minutest changes through which the food of animals passes, from simple alimentation to elaborated secretion and excretion—and to point out the intimate and intermediate separations and reunions of its constituent principles, is what the most sanguine physiology can scarcely hope to accomplish. Analysis, however, has ascertained that it always consists of the four simple elementary substances—oxygen, hydrogen, nitrogen, and carbon; and we know, that after having undergone a variety of mutations affecting their chemical relations, they are again eliminated from the body, under divers states and modes of recomposition. May not the pulmonary transpiration then be one of the modes of recomposition, in which the *oxygen* and *hydrogen* are eliminated? The cutaneous another? And the serosity of the urine a third? Is not the *carbon* itself, in fact, an exemplification, in which one of those constituents escapes in an uncombined state? And does not the highly azotised state of the urine justify us in believing it to be another of those exemplifications in which the *nitrogen* is separated from the same? **Ure** says, on the authority of Dr. **Berard**, that "as urea and uric acid, are the most azotised of all animal substances, the secretion of urine appears to have for its object, the separation of the excess of *azote* from the blood, as respiration separates from it the excess of *carbon.*" And we are all familiar with the fact, that the quantity of moisture which escapes from the body, does not at all times bear a direct ratio to the quantity which is consumed. Under pathological circumstances, it is even greatly disproportioned; and this has been ascribed to cutaneous or pulmonary absorption; this we shall see some reason hereafter to doubt; and the phenomenon must therefore remain wholly unaccounted for, unless it be attributed to some such operation as that which is herein hinted at. And with regard to the *carbon* which so suddenly appears at its formative juncture, unless it be regarded as one of the modes of this elimination also; and its presence in the radicles of the veins received as evidence of a peculiar action in the capillaries, separating it for their reception, its existence must remain wholly insolved; and I must acknowledge my failure in attempting to reach what was proposed in the foregoing proposition. On any other ground, the sudden formation of so insalutary a principle is wholly inexplicable. From these data I should therefore infer that it is the chief if not the only effete matter, which the *powers of absorption* are, in the situations assigned, regularly interested in removing. The exact spot in which this action takes place, is wholly immaterial—whether in the veins, the capillaries, or, as it were, in transitu, and the mystery of the process is not greater than that of the formation of any one of the animal compositions. It is evident that if the œconomy of nature is able by means of certain organic contrivances to overcome the elementary affinity of our food, and to separate therefrom the previously unformed chyme, chyle, blood, bone, urine, &c. that it manifests powers which require but slight variations to make them fully competent to their revival, and consequent elimination in any of the states and modifications which have been stated. It is with the *existence* of the carbon, however, the *fact* itself, and the circumstances attending its sudden formation, and not with the *mode* or *precise seat* of its action, that I am now interested; and to these I would extend the inductive statements, which have already been applied to the commixture in the thoracic duct of the lymph and the chyle. The time and space in which this operation is effected, as in most other instances, is manifestly short, but the new relation in which it presents itself, is in perfect compatibility with the consecutive phenomena of respiration, and developes a connection between them, which brings into perfect harmony the two extremes of the two great vascular systems. In whatever other light then the venous system may be viewed, its office, in this respect, is essentially residuary; and is strikingly contrastible with the tributary functions of the arteries and lymphatics.

Viewing the three systems under this relation, the circle of organic functions appears to be complete. Hitherto this has been unwittingly overlooked. The custom has been in tracing the successive series, to begin with the introduction of the matter of renovation into the stomach, and when we had proceeded through all its transitions to where the *direct* assimilative functions terminate, to rest satisfied with the success which seemingly attended us; hence the accounts of our progress thus far are regular and connected; but in returning to begin the series again, observation has been less minute in tracing the *indirect* to where former begin, and hence the accounts of our retrogression are entirely wanting. The true relation of the intermediate link remains unnoticed, and our march has been abrupt and made as it were by a bound. What adds corroboration to these observations is, that if the carbonaceous matter is not "ipso facto" the effete matter, nothing else is to be found in either of the two systems between which the disputed function lies, which can clearly lay claim to that denomination—nay, if its existence be not taken as the evidence of that absorption by which the opposite power of renovation is balanced, I know not by what other means that doctrine can be either exemplified or maintained. The truth of this opinion appears again, not only in the fact of its insalutary influence wherever it abounds, or whenever it is retarded, but in the extensive provision which is made for its direct and uniform removal. I am the more disposed to dwell upon this particular, because the truth of it appears to throw additional light upon the long disputed question relative to lymphatic absorption, and to explain some other phenomena which otherwise are totally inexplicable. Considering its now extraneous relation to the living actions of the tissues, the reason is seen at once why the tides of renovation and decomposition should be steadily balanced: if the carbon of the venous blood is the true matter of defœdation, as the chylo-lymphatic fluid is of nutrition, then is it obvious that the one must be regularly receding as the other is advancing; and this is what is actually found to be the case.

In accounting for its fatal opposition to the actions of the vital principle, it is usual to regard it as operating in a way which is wholly specific; but if it be of the nature which is herein supposed, are we not warranted in questioning this rationale, and in referring its effects rather to some more general law of the œconomy? Is it not indeed an individual exemplification merely of that universal rule, by which *all* foreign substances introduced into the circulation, become more or less insalutary? Being unassimilated or set free from a state of nutritive appropriation, the relation which it previously sustained no longer exists—its adaptation to life is lost—it has become relatively adventitious—the susceptibilities no longer tolerate it—and hence it can no longer abide within the body, except in a constant progress towards ejectment from this excretory reservoir without jeopardizing the sanity of the functions, or producing instantaneous death. Independent of its morbific incompatibility, its delay therein leads to a congestion, and standing in the way as it were, of the new supply of the blood of the arteries, it impedes and disturbs that easy and uniform movement of the solids and the fluids, in which the state of health may be succinctly stated to consist.

In the reduction of so large a proportion of the depurative matter to an elementary unit, much of that embarrassment is undoubtedly saved, which would have accompanied a more diversified excretion; and in the simplification of the process, by which this effect is secured, we behold another example of the determination to maintain without exception, the universal law of *determinate relations.* Every function manifests a double relation: one to the constitution of its organ, the other to its proper stimulus, as the structure is one, and the function is one, so is the stimulus usually one also; and it seems not unlikely that the apposite simplicity of the last in this instance has been modified in obedience to the foregoing principle. If this be the true relation of circumstances, the disparity in extent between the two systems is explained, and the reason is at once seen why the venous blood is so much more abundant than the arterial: the veins in fact are not only reservoirs which contain the relics of the arterial blood, which have not yet been assimilated, but of that of the solids and fluids which are to be excreted.

It is usual, I believe, with writers, in adverting to the difference of temperature between arterial and venous blood, to ascribe it simply to a manifested change in the capacity for caloric. That this change is implied in the difference is an acknowledged fact, for our minds are so constituted as to suggest to us in every change a capacity in the subject of it for change, as it does in that of every product the ability to produce; but this is only an implied condition, arising spontaneously from the knowledge of a fact. Now the question here refers not to the *capacity* itself, or the *ability* to produce, but to the *cause* of the change of capacity, or the *antecedent circumstances* which have been instumental in producing it. The analysis of this phenomena goes a little beyond, therefore, what has been attempted, and endeavours, upon the strength of the preceding explanations, to point out the *prior* relations on which the change of capacity depends. It will be found, I apprehend, in the application of the foregoing views, and has an unvarying relation to some accident which is ever present in the one species of blood, and ever absent in the other. Instead then of searching for it in some remote law of vitality which has hitherto been undiscovered, would it not be more philosophic to look upon it as the immediate consequence of the formation and presence of a substance inorganically related to life—in itself incapable therefore, of generating caloric and being proportionally uninfluenced by the organizing principle, is, therefore, labouring under an increasing proneness to suffer its diminution. Anterior to nutrition, the vitality of the circulating fluids being strong, the generation of caloric is proportionally great; but after it, the same fluids being mixed with foreign particles which the vitality has ceased to control, the generation of it is proportionally weak.

Whether or not fancy has had any share in pushing these speculations beyond a legitimate limit, I cannot at present determine; but if they are found to be valid, may we not upon the same principle also, partly, at least, explain the coldness attending what has been called the congestive states of fever, and those analogous local affections, in which a similar inequilibrium of circulation is said to exist? From the slowness of respiration and the general torpidity of the skin, nothing seems more rational than to expect that their decarbonizing functions should experience a considerable depression; and where this principle is suffered to accumulate in quantities disproportioned to its escape, it seems equally rational to expect the very effects which are found to follow. The sensorial oppression too, which is a usual concomitant of this state of things, is another of the phenomena which I think is most easily accounted for upon this principle; and from the agency which the nervous energy has been shown to exert in the generation of animal caloric, furnishes additional testimony in support of the solution—the effect in this latter instance, however, is secondary and not immediate.

The excretory action of the lungs is universally admitted and very generally understood. But as their absorbent action is perhaps more generally received than definitely apprehended; and as the doctrine is incidentally connected with the principal object of this inquiry, I will take the present opportunity to make a few remarks upon it.

The air is the natural excitant of the lungs, and the grand medicine by which all new properties are therein imparted to the blood. All experiments relating thereto, show that although it undergoes a decomposition in the art of respiration, neither of its constituent elements are absorbed. The two other accidents usually united with it, are humidity, and a small quantity of carbonic acid gas: the absorption of the first is incompatible with the extent of pulmonary transpiration, and the last with the separation of carbon from the veins. With regard to the experiments which have been instituted with artificial gases and odoriferous substances, I confess myself not altogether satisfied that this is really the channel by which they make their way into the circulation; besides, that I have something to object to the individuality of the experiments, and the general nature of the inferences which have been grounded upon them; and these will apply, I apprehend, as well to the doctrines of cutaneous and lymphatic absorption. Every experiment is in itself individual, and if successful, establishes two positions: 1st, it proves the existence of the function, *under the circumstances given*, in the vessels where the substance experimented with has *directly* entered them; and 2d, it proves the entrance of the *particular* substance with which the experiment is made—and beyond this it establishes nothing. The experience which we derive from this individual discovery goes no further, and informs us not in the least in relation to the admission of other articles: the *general* question of absorption it leaves untouched. Each experiment and each substance speaks only for itself; for each tissue has its particular mode of vitality, and its particular relation to an excitant, by which alone its *normal* action is supported; and the abnormal are too indefinite, and depend upon too many contingencies, to allow of a *general* inference, where the proposition is purely physiological. No reliance is to be had in the determination of the *general* interrogatory, where each separate affirmation or negation must depend upon the success or failure of each particular experiment, undertaken with substances having no *healthy* determinate relation to the parts experimented upon: and where we artificially set up a train of phenomena which otherwise could not arise. If the stomach is revulsed by tartar emetic, or the same effect is produced by hernia or intussusception, it does not follow that vomiting is a *physiological* operation of that organ, or an inverted peristaltic motion that of the whole alimentary canal. If a moderate quantity of water finds its way into the air-cells of the lungs, or any other substance which is not absolutely fatal from quantity or quality, it probably will be removed; but this in like manner does not show that when the lungs are not thus circumstanced, one of its functions is imbibition from without. What is *artificially* and only *temporarily* induced, is no evidence of what is *naturally* and *permanently* taking place. Nutrition and absorption are functions which belong to all parts of a living body; but the absorption herein referred to, has nothing to do with the present question, it is interstitial and distinct from that which is supposed to add to the nutrition of the body by drawing upon resources that are external to it. In this latter respect they appear to be constructed upon a plan which is in perfect congruity with that of the skin, and to be destined to act in conformity to this latter organ, in the *elimination only* of excretory products. When compared with the muco-gastric and intestinal surfaces, they present a contrast which strikingly accords with the modern investigations of European pathology; and may be said in this particular, and the forced exceptions of which they are susceptible, to bear some resemblance to the polypus, the internal and external surfaces of which are said to be absorbent or eliminatory, according as their natural relations are retained, or the animal is *experimentally* inverted.

But if the acquisition of any additional property to the blood by the power of absorption is denied, and the act of respiration is simply confined to that of its decarbonization, it then remains to be inquired by what agency has the arterial blood acquired that greater vitality in its passage through the lungs, by which it is said to be eminently distinguished from the venous. That this is not a property which has passed into it from the atmosphere, is susceptible of absolute demonstration. That element, the motorial compound of two material inorganic substances, neither is endowed with the power to originate it, nor to add any thing to the *quantity* which was originally possessed. The question here occurs to us, however, is it the result of the *outward* chemistry and *physical* laws, or of the *inward* and *vital?* Little hesitation can be felt in replying to which of the two it belongs. Notwithstanding the experiments of FRAY, SPALLANZANI, and BONNET, in favour of the hypothesis of dissemination, I think it may be assumed, without incurring the allegation of a "petitio principii," that this effect must be sought for in some already existing provision within the precints of the organization, the agent of which being already vitalized, is qualified to produce it. "Life," says CUVIER, "is the product only of life;" and the occurrence of every vivific change, as well as of every organic result, in obedience to this principle, are the exclusive effects of the operation of it only. Physical agents may excite to a more perfect development of its manifestations, or derange them by rendering the organs incompetent to a display of its healthy powers; but in this they neither evince any ability to beget, or to add one iota to the indivisible essence.

To what agent shall we then ascribe it? The determination of this naturally leads us to another of the properties of the lymph, which will come to be considered as we proceed. In the mean time it may be proper to see if the fact which is assumed really exists, and to be certain that the arterial is more living than the venous blood. For my own part I do not conceive that by the simple conversion of the one into the other, any thing has been actually *added* to augment the amount of it in the former. A foreign and useless substance has been removed, by which certain changes are suffered to arise, and it is to the negative influence chiefly of this removal in promoting a *vital concentration* of the lymphatic or fibrinous portion of the arterial blood, that I apprehend the phenomena to have its cause. BLUMENBACH observes in his physiology, that a variety of phenomena "demonstrate in a most striking manner, the superior importance of this lymphatic portion, in which the vital principle of the blood appears *immediatly* to reside:" so that what has been considered an *accession* of vitality, is probably owing only to a closer play of the affinities, consequent to the removal of an element, which while present had the effect of opposing this vital concentration, and consequently of keeping the sanguineous molecules at a greater distance from each other. The effect, therefore, is one of the *inward* chemistry and vital laws, and not of the *outward* and atmospheric: it is the result of a property belonging in a particular degree to the lymph. As in the physical universe, the manifestations which therein arise, are referred to the powers of gravitation; and in the organic, those which are connected with the solids, to the laws of vital contractility, so in the organic likewise, those which are associated with the fluids must be referred to a modification of the same operative principle. Contractility in fact is a universal property of life; and in the tendency which it has towards a universal organic consolidation pervades both the fixed and moveable particles of the body.

The views which have been taken in the preceding parts of this paper, are strengthened by a consideration of the manner in which the lymph is formed, its nature, relations, and apparent place of origin. Anatomy teaches us that it is found, not sensibly diversified in veins, arteries, and lymphatics. In which of these does the function reside by which it is fabricated? Each originates and terminates in the others forming thereby a circle, in some part of which the above proposition requires to be located. 1st. Of the veins.—Is it formed in these? Their offices; the nature of the fluid which circulates in them; and that of the operation which we have seen some reason for believing is carried on in their minute ramifications, are utterly opposed to this idea. In the order of time, the venous circulation is secondary to that of the arterial, and this together with the termination of the receptaculum chyli, and that of the divaricating lymphatics, show that the lymph which herein exists, is derivative solely. 2d. Is it formed in the arteries? From the termination of that receptacle, and the continuity with it of the pulmonic arteries and veins, it is evident that they, as well as the veins are indebted to this latter organ for its existence in them also. It is evident then, that in fixing the manner in which the lymphatics become possessed of it, I shall at the same time determine the proposition which is now under consideration. But hitherto we have moved only in a circle, and as these vessels are said to terminate in each other, it may be objected to, that as the arteries receive it from the lymphatics, so do the lymphatics receive it from the arteries. And yet it is evident that a fluid so elaborate could not have been formed at once: and that there is some tissue which is destined to provide it. The fact is, all of the arteries do not terminate in lymphatics any more than they do in veins; but some of them end, as do all the other vessels likewise, in that tissue which from it minuteness and great delicacy, has been called the capillary tissue. They communicate, it is true, but I believe that communication to be indirect. Whether that tissue be really vascular, or partially or wholly parenchymatous, is foreign to my purpose to determine. It is here, however, that the lymphatics arise; and it is here also that I conceive it will be found their fluid, in common with all the secretions of the body, is in like manner fabricated. Not, as our proposition imported, in either of the three foregoing systems of vessels, but in the parenchymatous or reteform structure, which either envelopes or constitutes the "minimum visibile" of our frames. Nothing but the interposition of this structure, and the necessity which results from the preceding review of locating this function here, saves us from the absurdity of supposing a physiological anomaly, viz. that of a fluid moving in a complete circle, having neither origin or termination; without any provision for the varying necessities of the body from infancy to old age; and without experiencing any alteration in the whole of its course. Our former notions derived it from the internal cavities and interstitial spaces: not so our present ones. According to these it is in the aforesaid structure it has its origin; and it is in the same structure that those movements begin, which, however little understood, are to transmit it into the lymphatics, veins and arteries, for the various uses it is destined to subserve in the course of its circulation. Its existence in all of these vessels then, is secondary and derivative; and the *new* supply, (which previous to this secretory function has no *determinate* existence,) is a product which has been formed by the action of this structure, out of the chylo-lymphatic combination transmitted to it through the medium of the arteries. Hence the first step towards it is alimentation, and the last a *specific* action which belongs to the capillary structure. Considering the number of stages of this process, from the first to the last result; the progressive animalization of the thoracic compound; the striking resemblance of the lymph to arterial blood, previous to its combination with the chyle; its derivation therefrom; its being in its *pure* state, the *last* of the animal products in the whole series of assimilative changes, and the *first* to be mixed with the crude and as yet unassimilated; I think we have the most conclusive evidence of its being the transcendental result of a *determinate secretory function* having its seat in common with the rest of the nutritive actions of the body. And if to these considerations we call to mind the observations which have been already quoted from Blumenbach, and recollect that it is the most important of all the animal agents in the reparation of bodily injuries; that it constitutes, in the ovarian state, a large proportion of the nascent structure of all animals having their origin ab ovo; that there is good reason for believing it to be the blood itself in a certain race, which, from the absence of the colouring particles, has been called "white blooded;" and that it is also in this race we witness the most extraordinary manifestations of its reproductive power, as in the restoration of the head of the snail, &c. &c.; the impression of the truth of the doctrine which I have inculcated, falls little short of the most absolute conviction.

It is perhaps not the least of the recommendatory advantages of this doctrine, that it points to some direct and positive use, for which so important a compound has been instituted. In doing this too, a link is supplied, which hitherto has been wanting to make the automic cycle of organic actions perfect: the two extremes of digestion and nutrition are made, as it were, to meet; the boundaries of the direct and indirect series of organic functions are brought into apposition, where the molecular affinities conduct the intricacies of composition, and resolve those which have become extraneous. And instead of a straight forward train of alterations, in which it is impossible to imagine by what provision the train was to be renewed and kept in motion, we are presented with a revolving sequence, in which the co-operation of the antagonizing powers of composition and decay, for the preservation of the individual is explained in an intelligible way. Formerly, when the chyle was formed, and its course traced to the heart, and its vitality therein recognised, the next step was to follow the blood augmented by this new supply to the lungs—to examine its alterations, and retrace it to the heart; then to pursue it through the arteries till it is lost in the capillaries; and, finally, having resigned it to the laws of textural appropriation to suppose that the assimilative functions were terminated, and that the arterial blood having been in an unknown way reconverted into venous, was straightway returned to the heart, from which it began to repeat its rounds as before. In the whole of this prosecution and inquiry, the means was never hinted at, by which, the invisible structure, while it was removing the impediments to renovation, was at the same time fabricating a menstruum, which by mixing with, and affecting, and vivifying the chyle, was to prepare for, and to resume the repetition of the series. It is probably owing to the little attention which was bestowed upon these phenomena, and the necessity which was at the same time seen that the explanation of the animalzation of the chyle should be made before the venous blood in the lungs became arterial, that physiologists have been so universally led into the general fallacy of ascribing to the influence of the atmosphere, that which has been shown to belong to other causes. Considering the remarkableness of the phenomena which then arise, the want of knowledge in relation to any preliminary action which could explain it, I cannot conceive how they could have arrived at any other inference: it could not, under presenting circumstances, have been located elsewhere. But it is evident, as the change from inorganization to life is the greatest, as it is also the most sudden that we ever behold, that the agent which is thus destined to produce it, must be previously endowed with all the requisites to its fulfilment: it is not surprising therefore that a process so elaborate, should be instituted to effect a purpose apparently so remote. According to the theory which has been advanced, the atmosphere, except in an indirect way, has nothing to do with it; but the change is the plain and undiminishing effect of that vital concentration of the particles which characterize the living solids and fluids of every organized body. It is exemplified in its powers of manifestation in the coagulation of the blood, even after it has been drawn from the vessels; the pleuritic crust; the membrana caduca of Hunter; and the membranes of inflammation—all of which, particularly the first, intimate to us something of the process which secretely attends the vital consolidation of the fluids. It is this which seems to determine the infinitesimal arrangements of the textures, as well the sensible and even voluntary contractions of the muscular system. That the chylo-lymphatic combination should therefore display increasing manifestations of it, when mixed with the blood, is nothing out of the way, and calls for no new search after principle to enable us to explain it. RICHERAND observes, in relation to this product, that when abstinence has been continued for a length of time, this fluid, (meaning that of the thoracic duct,) appears to be nearly altogether lymph, approximating, as the abstinence is prolonged, nearer and nearer to the properties of blood; but if it be collected soon after digestion in the stomach has been completed, that it appears to be of a nature entirely different—separating after rest into two parts, the one a *watery* liquid, the other a semi-transparent *gelatinous* coagulum. Now if the results of animal chemistry are to be relied on, this *watery liquid* and *gelatinous coagulum* denote its imperfect composition, and indicate it to partake of the nature of an animalized fluid, united to one which is not. The composition, in short, exhibits precisely that intermediate degree of vitality which we would expect to find, considering the particular stage of the process—evincing less of it than blood, and more of it than chyle.

Majendie entertains the opinion that the lymphatics are appendages to the veins, receiving from the arteries that portion of their blood which has not been distributed by the common route, and returning it to the heart. A retrospect of all which has been delivered, represents them, to my apprehension in a very different light, having no such relation as the term imports, to either arteries or veins; but as a distinct system, formed for a special purpose, and bearing the same functional relation in the changes which are produced in the thoracic duct to sanguification, which chylification does to it. Viewing the process under this relation, as a preliminary step to sanguification, we are saved from the gratuity of imposing upon them superogatory duties, and avoid thereby the unphilosophic proceeding of attributing, in the same spirit, a wasteful expenditure of contrivance to nature, which she no where displays in any part of her province. It doubtless would have been superfluous in her to double her apparatus, for effecting that which the veins alone are apparently fully able to accomplish; and if the lymph is withdrawn from the general current only to be returned to it again, I must confess I cannot see. where lies the wisdom in its having been withdrawn at all. The veins, there are undoubted reasons for believing, are the universal absorbents of the body; and if incorporation and comminute mixture had been the objects of this arrangement, it has evidently failed, for it could have been more completely accomplished without than with it, inasmuch as the combined fluids would otherwise have had to undergo the *whole* round of the veins, before the demand for more blood was required by the arteries.* The supposition subjects us to another gratuity also; that of making it a matter of entire indifference, whether or not the chyle be directly or mediately incorporated with the general mass of the blood.

It may not be the least valuable part of the foregoing considerations, that collectively they afford a plausible elucidation at least, if not the best, of the anatomical relations which have been reviewed, and their respective and connected uses.

The veins, according to this theory, arise exactly where the largest proportion of what is here considered the effete matter of the body, is set at liberty from the tissues, and terminate at the exterior of the largest excretory organ, where it is eliminated: they are therefore arranged according to the most favourable plan for performing the functions which have been ascribed to them, and in this they are much aided, by the direction in which their blood is made to circulate.

The arteries, on the other hand, consistently with the same plan, are arranged directly the reverse of this: they begin at the nearest practicable point to the source of the chylo-lymphatic supply, and terminate in that general animal laboratory, where every thing which is distributed to it, is sooner or later turned to a proper account: they also are therefore well adapted for performing the task which has been allotted to them.

Between the extremes of these two systems, we have on the one side the excretory organs, particularly the lungs, and on the other the parenchymatous or capillary, or secretory structure, both occupying an intermediate location between the direct and indirect apparatuses of composition and decomposition, and deriving from this situation every advantage which the relation can afford.

The former, by the double relation which they thus maintain, are truly made the great safeguards to the system, removing whatever is unfit to be transmitted from one apparatus into the other, and thereby defending to a certain extent the organs and tissues from the intrusion of adventitious matters, or whatever is likely to prove deleterious to them by reason of their extraneous relations.

We thus see the final cause of an occurrence which was formerly alluded to, viz.: that notwithstanding the variety of substances with which the powers of absorption have been tried, so few have found their way directly into the lymphatic system, while nearly all of them have done so into the veins: and we thus see also how it is, that odoriferous substances which have been conveyed or have found their way into the stomach, and passed through the portal ramifica tions into the vena cava, soon find their way out by the same channel, and are speedily recognized in the breath. The same offices are no doubt performed also by the kidneys and the skin; but it is evident from the above facts, and the peculiar situation of the lungs, that by far the largest amount is separated by the latter organs, and consequently that the former have comparatively but little to do.

In this separateness and mutual dependence of the two general systems of vessels, they bear an analogy to the anatomical relations of the systemic and pulmonic, each carrying on a distinct circulation but jointly co-operating to establish a single uniform one; and by their uncomplicated and unembarrassed relations, affording the happiest facilities towards the accomplishment of the wasteful and restorative operations.

It must be evident now, I think, in the arrangement of this general apparatus, in which the parts are relatively constructed for some common end, that to have incorporated the lymph directly with the mass of the venous blood, would have been to subject it to many inconveniences, which by the disposal actually adopted have been happily avoided. By keeping it separate, its purity is undoubtedly preserved, and it seems obviously thereby better qualified for achieving the ends which I have endeavoured to show it is destined to perform. Any other distribution of it is incompatible with its specific origin, vivific nature, and the insurmountable necessity which seems to have called for its preliminary union with the chyle in the reservoir of PICQUET. It makes nothing against this theory, that all of the lymphatics do not terminate in the reservoir; the necessity is *partial*, not absolute, and in fact if we compare all of these vessels with the veins, and the ultimate union of their several fluids in the auricle and ventricle of the heart, we shall see reason, I think, for considering the collateral lymphatics which enter directly into the veins, as so many miniature thoracic ducts, and the thoracic duct as a colossal lymphatic. What lymph goes by the former channel into the veins is destined for the use of the venous blood: what goes into the latter, for the use of the chyle.

It is thought by some, that the valve which is situated at the entrance of the duct into the subclavian vein, is intended to prevent the lateral passage of the blood into the duct; by others, that it is to restrain the entrance of the chyle into the vein, and to occasion it to flow towards the heart in a slow and gradual stillicidium. Which, if either of these opinions is entitled to an exclusive regard, I am not concerned to know; either, or both of tnem, however, corroborate the theory which has been advanced; of the necessity of the purity and separateness of the lymph, and its preliminary union with the chyle in that receptacle. The utility of placing a guard at this spot, however, is not greater than the advantages which have been gained by concentrating the terminations and origins of the different vessels at the heart. By this method, whatever may be the diversities of the capillary action, so far as it is liable to be influenced by the momentum of the circulation, and the general distribution of the blood, it becomes subjected to the control of one influencing organ: the *relative proportions* in which the circulating fluids are thus drawn into the heart and divaricated from it, become fixed and determinate; and the homogeneity of the blood is settled and preserved upon principles having the apparent uniformity of a law. Directed by this common influence, the Picquetian compound, manufactured out of definite quantities of chyle and lymph, are received into the right cavities of the heart; and in the same proportions uniting with relative quantities of the venous blood, and the lymph from the right arm and side of the neck, is transmitted to the lungs. Being here exposed to the action of an agent which is composed of a definite proportion of elementary constituents also, it is presumable that it undergoes a like definite variation; and is in this state returned to the left cavities of the heart, entering into general circulation, it is in the same state distributed to the tissues; and having at length satisfied their elective wants, terminates the series of what I have ventured to denominate the *direct* assimilative functions, and at which it was remarked our *straight-forward* investigations ended. And if the influence of this power is felt through the momentum of the circulation in the capillaries likewise, a fact which it seems cannot be denied; does it not also contribute, in a high degree, to preserve the equilibrium between the functions of composition and decay, and thus, to regulate even in its minutest adjustments, relations which are observed every where else to prevail? A more perfect device for maintaining the harmony of the vital functions cannot be conceived; and the congenity and consistency which seems to pervade every part of the plan, are additional proofs of the truth of the foregoing speculations.

It is thus that the œconomy of nature is preserved. An animated circle of reparation and ejection is continually revolving: and as in the species, every being is destined not for its own happiness alone, or its own isolated existence, so in the individual every organ and every function is created not for its own duration only, but for that of the other organs and other functions also, to which they are related by the ties of a common necessity.

I will now close by recapitulating the points directly or incidentally embraced in the foregoing essay, which the leading arguments appear most effectually to sustain.

1st. The lymph is not a residuary fluid transmitted by a special route from the arteries into the veins; nor the decomposed matters of the tissues, which it is the special office of the absorbents to remove.

2d. That its origin, nature, and destination, render it probable that it is a *special secretion*, or the product of a power closely allied to it.

3d. That its office is, in the first place, to vivify the chyle; in the next, to augment the animalization of the arterial blood: and lastly, to produce all those effects which constitute the phenomena of reproduction, adhesion, &c.

4th. The lymphatics are, consequently, not the absorbent instruments of the body, and in a state of health are not in the least concerned in the imbibition and removal of dupurative matter.

5th. That this power is proved by positive facts and by argumentation, to belong exclusively to the veins.

6th. That the quantity of the carbonaceous principle in the venous blood is corroborative evidence of this, and is to be looked upon as the effete matter itself.

7th. That it is the cause of the difference of temperature between the arterial and venous blood, and its elimination in the lungs the only change which is effected by respiration. And,

Lastly. That the lungs are, physiologically, not absorbing organs: and in this respect, as well as several others, are allied to the skin and opposed to the stomach and alimentary passages.

Art. XIV. *Case of Poisoning by Cantharides.* By A. W. Ives, M. D of New York.

On the evening of the 7th of March, 1827, I was called to the House of Refuge for Juvenile Delinquents, to see William Cummings, a healthy, athletic lad, seventeen years old. In a paroxysm of anger he had swallowed about an ounce of *tincture of cantharides*, supposing it to be laudanum. I saw him at nine o'clock, about an hour and a half after the poison was taken, labouring under the following symptoms:—hurried respiration, flushed countenance, eyes red and suffused with tears, profuse ptyalism, small but highly accelerated pulse, convulsive agitation and trembling, acute pain in the regions of the stomach and bladder, with such exquisite sensibility of these organs that the slightest pressure was instantly followed by general convulsions.

An hour previous to my arrival, the apothecary of the house had given the patient a scruple of the sulph. zinc. and he had subsequently taken ten grains of sulphate of copper, by the direction of a medical friend. As he had not yet vomited, and the symptoms continued to increase in violence, one drachm of ipecacuanha was administered; and, at the expiration of twenty minutes, he was bled to sixteen ounces from the arm. The operation was followed by faintness and free vomiting, and the convulsive action became for a while suspended. He was now ordered two ounces ol. ricini, and to accelerate its operation, frequent mucilaginous injections; and should these fail of producing free evacuations, the oil to be repeated in four hours. He was also directed to drink copiously of linseed tea, to have fomentations applied to the abdomen, and in case of a recurrence of the convulsions, a laudanum injection after the operation of the cathartic.

It was found necessary to repeat the oil in the course of the night. after which full dejections took place. Convulsions of the limbs occurred at intervals, and also long-continued and painful priapisms.

On the morning of the 8th, I found the patient in some degree relieved from the violent symptoms of the preceding evening. His mind was calm; there was but little febrile excitement, though his pulse was quicker and skin somewhat dryer than in health. He was still unable to bear the least pressure over the epigastric and pubic regions, and he had passed no urine.

He was directed to be cupped over the hypogastrium—to take of the following mixture. Sp. eth. nitric. ℥ss. sp. acet. ammon. ℥iv. M.—Half an ounce every two hours—*linseed and barley tea at 4 o'clock, P. M.—repeat the ol. ricini—fomentations—pediluvium.*

9th. 9 o'clock, A. M.—During the preceding day, he continued comfortable, full evacuations followed the use of the oil, and the spasms disappeared. In the evening, however, an exacerbation of the symptoms ensued; the pain about the bladder increased; priapism returned; and, before the next morning, wild delirium. At this hour he is composed, complains of tenderness over the bladder, particularly on pressure, but is calm and comparatively comfortable—pulse eighty in a minute, with slight increase of action—a thin white coat upon the tongue.—*Venesection, to* ℥viii.; *ol. ricini, at 2 o'clock, P. M.; fomentations to be continued through the day.*

10th. At 8 o'clock this morning I found him in a state of complete insensibility. About 7 o'clock, the evening before, the convulsions returned with appalling violence, and continued for two or three hours.

when there was an interval of quiet and reason. At 2 o'clock, in the morning, after having complained for a short time of severe pain in the head, he sunk into a state of coma, in which he continued at the time I saw him.—*Semicupium; strong sinapisms to the back of the neck, feet, ankles, and legs; warm stimulating injections.*

At 11 o'clock, Dr. J. Stearns, my colleague at the House of Refuge, saw the patient with me in consultation; we now found him rational, and his symptoms much the same as yesterday morning, but he has yet passed no urine since the attack.

11th. At 10 o'clock, A. M. the condition of our patient apparently much improved; four hours after our last visit he had a copious evacuations from the bowels, and at the same time voided eight or ten ounces of high-coloured urine. In the course of the day he occasionally complained of pain in the head, and at times had slight delirium, but these symptoms subsided after repeating the sinapisms. He has passed no water since yesterday afternoon.—*Blister to the nape of the neck; sinapisms above the pubes; calomel, ten grains—to be followed by castor oil.*

The evacuations from the bowels, were from this period free and natural, and the healthy secretion of the urine was restored. The patient recovered rapidly, so that in one week he was able to return to his customary employment, and to eat, with a good appetite, of the usual diet of the house. He seemed to regret sincerely, the folly and rashness that had well nigh destroyed him; and from this time was obedient, faithful, and industrious, and apparently free from all symptoms of disease, until the 14th of April.

About 10 o'clock this day, whilst employed in whitewashing, he was suddenly seized with severe pain in the head, pain in the right side, chilliness, and trembling, and shortly afterwards with universal spasms. (He was from this time under the immediate direction of Dr. Stearns, who was in attendance at the refuge, and in the hospital, when Cummings was brought in.) He was immediately directed an emetico-cathartic, and during the reaction, which succeeded the attack, was bled largely.

By these means he appeared to be relieved of pain, and the spasms subsided, but he soon after sunk into a comatose state, and remained in it till the next morning.—*Fomentations; pediluvium; sinapisms to the thighs and feet; blister to the nape of the neck.*

15th. In addition to the above means he was this morning directed fifteen grains of calomel, and subsequently sulphat soda in sufficient quantity to promote free evacuations from the bowels. He was again for a few hours roused from lethargy, but at 1 o'clock P. M.

relapsed, and thus as the force of disease or the power of remedies predominated, was alternately comatose and rational till morning.

16th. Dr. Stearns and myself visited him at 10 o'clock A. M.—although he complained of dull pain in the head, and when suffered to remain long undisturbed, became somewhat lethargic, [still] there were no symptoms that were manifestly alarming. He spoke rationally and intelligibly, and his pulse, eyes, skin, and general appearance seemed to indicate a favourable crisis.

He was now put upon the use of small doses of calomel and Dover's powder as an alterative. At five o'clock of the same day he was again attacked with severe convulsions, which continued about four hours.

17th. Better—a slight return of spasms in the afternoon.

18th. His mouth and gums are affected by the calomel. From this time he appeared to be rapidly improving till the 20th, when he had so far recovered his strength as to sit up the whole day. The only unfavourable symptom observable at this time, was an unalterable conviction in his own mind that he should shortly die.

21st. At four o'clock P. M. he had a recurrence of terrible convulsions, which lasted about half an hour, then a lucid interval of four or five hours, and finally a state of entire insensibility, which continued till ten o'clock A. M. of the 22d, when he expired.

At four o'clock of the same day the body was opened, and by the assistance of Drs. WOOD, CHEESEMAN, and RODGERS the contents of the cranium, thorax, abdomen, and pelvis were examined with unusual particularity.

The only morbid appearances exhibited were the following:—The blood vessels of the brain were preturnaturally turged, especially those of the cerebellum, which was covered with a coat of coagulable lymph. About an ounce of serum was effused into the base of the skull. The mucous membrane of the stomach was whitish, or paler than natural, soft, pulpy, and very easily detached by rubbing it with the finger. Sanguineous congestion in the pelvis of the kidneys, exhibiting the usual appearances of inflammation in these parts. Ten ounces of urine were drawn from the bladder by a catheter.

The following queries are obviously suggested in the foregoing case. Was the disease and death of the patient produced solely by the cantharides? What connection was there between the first attack and the second? What was the immediate or proximate cause of the final disease? That the first attack was exclusively owing to the cantharides, I think there can be no reasonable doubt. Cummings was the first subject admitted into the refuge, and of course had been there more than two years. During the whole of this time he was in perfect health. It may be said that some symptoms were absent which usually characterize the action of cantharides, but the fact that there was an entire suppression of urine, and long-continued painful priapism, symptoms which this poison only would be likely to produce, is evidence, which viewed in connection with the circumstances of his taking it, shows conclusively that his disease was solely produced by that cause. In the course of the first sickness there was evidently great sympathetic irritation, if not an entire metastasis of disease, first between the stomach and urinary organs, and finally between these organs and the brain. This appeared not only from the symptoms alternately prominent, of the deranged functions of these several parts, but from the traces of inflammation discovered on dissection.* The violence thus sustained by these organs, left them strongly predisposed to a recurrence of diseased action, and the appearances on dissection not less than the symptoms which immediately preceded death, showed the brain to have suffered most severely in the first attack, and to have been the chief seat of disease in the last. Cummings had been constantly and laboriously engaged for four or five days before he last sickened, and was greatly fatigued the preceding day, which of itself was sufficient to excite disease in a vital organ already no doubt impaired by previous lesion.

I have said that Cummings had taken an *ounce* of tinct. of cantharides, but would now state more definitely, that he was seen to drink the medicine from a small-sized ounce vial, which he filled with the tincture, and took from the medicine case that morning. The fact that he obtained it from the vessel containing cantharides, was confirmed by examining a small portion remaining in the vial. Now then, if in this case, sickness and death were caused by an ounce at most of this medicine, how shall we reconcile it with the statement of a late writer, that, (in cases of impotence,) he has administered it in several instances, in doses of one or two ounces, two or three times a day; and that, on one occasion, a patient under his charge, labouring under extreme mental anguish, took six ounces of tinct. of cantharides during the night, without the least mischief arising.* It is acknowledged that sometimes in the last stage of fevers of peculiar malignity, and also in some diseases of the stomach itself, this organ becomes so torpid that all medicines cease to have any effect; but it is not pretended that any such peculiarity existed in the cases above mentioned, for the writer labours to prove the general error of administering the cantharides in too small doses, and the entire safety of adopting his example in ordinary practice; and this is my apology for introducing the subject in this place. So many cases are on record, where death ensued from a much smaller quantity than is here prescribed as an ordinary dose, that it is fairly inferred that the preparation administered in the above cases was inert, and that the practice is an unsafe precedent in the use of the remedy.

---

* It was not till after I had made the above memorandum of post mortem appearances that I saw a review of M. Andral's work on "Chronic Gastritis," in which *paleness and softness* of the gastric mucous membrane, *unattended by redness*, are particularly pointed out as characteristic marks of inflammation. These phenomena were strikingly exhibited in the case under consideration, and are strongly confirmatory of Andral's statement. He says, "looking to etiology, we shall find the greater number of agents in the production of these softenings, belong to the class of irritants. Poisons introduced into the stomach of animals produced the appearances in question." Again he remarks, "in young, plethoric, and irritable persons, endued with great nervous sensibility, a very small softness of the stomach will produce a great general reaction in the system, followed by intense fever, delirium, convulsions, disturbance of all the functions and sudden death."—*Medico-Chirurgical Review, Vol. X. p.* 150, *American Edition.*

During the illness of Cummings, Dr. G. Emerson, of Philadelphia, then on a visit to this city, saw the patient with me. On his return home, he had the kindness to send me the subjoined case, which he transcribed from the note book of the late Dr. S. P. Griffitts. It is an additional illustration of the action of cantharides as a poison, and as is justly remarked by Dr. Emerson, "the value of the case is greatly enhanced from the high degree of fidelity and candour which marked the character of the narrator."

> "7 mo. 29th, 1804. Called to see ——, —— years of age, who three hours before had swallowed a tea-spoonful of powdered cantharides by mistake. Ten minutes after she threw up a small quantity of phlegm. An hour after took fifteen grains of P. Ipecac. and plenty of warm water, and threw up the contents of the stomach with the cantharides. Took a large dose of castor oil, which puked and purged. Her pulse now low, with great retching—burning in the stomach—sore tongue—strangury. Was blod fourteen ounces. Mustard cataplasm to the stomach. Took ten drops of tinct. thebaic. with spt. nit. dulc. every hour. At bed time one grain of opium and warm bath. Rested well. Next day heavy—sickness less—strangury diminished. Said she felt the urine passing from the kidneys to the bladder; where, when it arrived, it occasioned a sensible burning. Drank very often, chiefly milk, and molasses and water. Little vomiting—great costiveness, though enemata of sal. Glaub. had been given. Semicupium which produced great sweat. Bled again at night. Strength decreased, and she sunk under the weakness."

---

* Facts and Inferences chiefly relating to Medical Jurisprudence, &c. by John W. Francis, M. D. &c. Vide New York Medical and Physical Journal, Vol. 2, p. 28.

REVIEWS.

Art. XV. *De la Non-existence du Virus Vénérien, prouvée par le raisonnement, l'observation et l'expérience; avec un Traité Théorique et Pratique des maux Vénériens, rédigé d'apres les principes de la Nouvelle Doctrine Médicale.* Par L. F. R. A. Richond Des Brus, Du Puy. (Haute-Loire,) Docteur en Médecine de la Faculté de Paris. Ex-Chirurgien aide-major a l'Hopital Militaire de Strasbourg, Associé Correspondant de la Société Royale de Médecine de Bourdeaux, de celles de Toulouse, Metz, Strasbourg, et Correspondant de la Société des Sciences, Arts et Agriculture d'Agen. A Paris, 1826. Vols. II. 8vo. pp. 883.

The first quarter of the nineteenth century, will stand conspicuous in the annals of medicine, for great changes in the pathology and treatment of diseases. No subject has perhaps profited more by the revolution than that of venereal complaints, as no other was ever more obscured by errors, or tramelled by imposing dogmas. The authority of such names as Hunter, Bell, and Swediaur, had bowed down the profession to implicit faith and patient credulity. But these obstacles, ever in the way of improvement, are rapidly yielding to the successful efforts of enlightened individuals, whose reports regarded at first as heretical, have been subsequently viewed by the more ingenuous with complacency, and finally rewarded with a fair investigation. In this way firm believers in the specific and even chemical agency of mercury, as the only neutralizer and destroyer of the syphilitic poison, have come at length not only to a knowledge of its frequent inefficacy, but to a sense of the injury generally attendant upon its use, even when administered according to the most orthodox directions. Patients were found to survive, when mercurials were either dispensed with entirely or sparingly exhibited; nay, even to recover from local and constitutional ailments under other treatment. The old practice, founded upon the all-sufficiency of this agent over the poison, yielding to the force of these observations, the cure of lues, is now successfully conducted by many upon principles alike applicable to all diseases. In this country the number of those who have ventured thus far is yet comparatively small: but, counting upon the ordinary force of truth, and the ardour with which it is here sought after, we have no hesitation in declaring it as our firm belief, that it a very few years a total reformation will have been effected in this branch of medicine, to the almost entire exclusion of the old, esteemed, fundamental doctrines.

Nor can we feel much wonder at the tenacity with which the old opinions relative to venereal affections have been adhered to, when we consider the weight of the chief authorities that founded and sanctioned them. Some of these were true disciples of the Baconian school, regulating their course by no other landmarks than those established by nature, and ascertained by observation and experiment. For such men with such guides to fall short of the attainment of truth, shows the narrowness of the limits which circumscribe human genius, and whilst it warns us against too implicit faith in any names or authorities, should at the same time make us cautious even of our own conclusions and opinions.

The freedom of inquiry now spreading on every side, we hail as the power that is to redeem the followers of the healing art from much of the opprobrium they have been made to sustain, and must continue to bear, until their department acquires a greater degree of that exactness which gives stability to the other sciences. It is the obscurity and uncertainty hitherto involving medical subjects, which have given rise to such perpetual discord among physicians, and invited open scepticism and jests: allowed empiricism to make her bold encroachments, mock at the angry fulminations and unavailing attempts employed to put her down, and frequently to triumph from the superior confidence awarded to her perilous but often successful nostrums. And to the same causes is it owing, that the evidence of physicians, upon points connected with their profession, have so little weight in a court of justice. It is only the dawn of a better intelligence that can free medicine from this perplexing and degrading situation. We have, it is true, advanced so far as to be able to smile at the hermetic science of the Egyptians, and that absurd love of mystery, which led them to worship the Ibis, because the space between its legs when parted asunder as it walks, forms a complete equilateral triangle. But having cast off the slough of superstition, we have yet to free ourselves from the dominion exercised over us by others, and submit more entirely to the guidance of our own common sense and observation. Certain it is, however, that we have the most difficult allotment of science assigned us for cultivation, seeing that whilst others are concerned in tracing the forms and relations of material substances, and the reciprocal actions of inert matter: it is our task to acquire a knowledge of the phenomena of life and to ascertain the operation of the most subtile agents. upon principles only cognizable from their effects. But the greater the difficulty, the greater the glory of the achievment. HARVEY, the NEWTON of our science, has brought to light secrets hidden from the mind of man, for all we know, from his first creation, and the successful researches of BICHAT, in addition to what they have already accomplished, may yet develope operations in the animal economy, which have been consigned to the list of inscrutible first causes.

We must not, however, suffer our zeal for the general welfare of the science to lead us from the particular subject in which we are engaged.

The main points which M. Des Brus regards himself as having established in his treatise, are—1st. The non-existence of a specific venereal virus, said to have been originally carried from America to Europe; 2d. That venereal affections were known long before the period of the pretended importation; 3d. That the primary and secondary effects attributed to the specific poison, possess no distinctive characteristics and are not specific; 4th. That the manner in which the disease is introduced into the system, its seat, the causes of its reproduction and maintenance in defiance of the processes of assimilation and decomposition incessantly going on, are unknown, and have given rise to a multitude of ridiculous hypotheses; 5th. That the crowd of different remedies employed with advantage against syphilis, shows that its nature is not specific; 6th. That mercury does not always cure it, but sometimes aggravates and proves dangerous whilst it cures a great many diseases not venereal; 7th. That the non-mercurial treatment is favourable; 8th. That the development of the constitutional phenomena and even the existence of hereditary syphilis may be explained without reference to a virus; 9th. That these last may be cured without a specific; 10th. That all, in fine, which has been said of syphilis, complicated, disguised, etc. is altogether absurd. The reasoning, observation, and experience brought by our author in support of these various positions, will be presented in this article, so much of them, at least, as will serve to do justice to his arguments. But it may first be necessary to examine the pretensions of one who has made so bold an attempt, not simply to break through the limits prescribed by former authorities, but to overturn the whole foundation and superstructure upon which the doctrines and treatment of the disease had formerly rested, substituting others of an entirely new order.

M. Richond Des Brus, Doctor of Medicine, of the Faculty of Paris, and, as may be seen by referring to the heading of this article, member of various other medical and scientific associations, professes to have devoted himself almost exclusively to the consideration and treatment of venereal affections. Charged with the direction of this department of practice in the Military Hospital of Strasbourgh, he had there great facilities of observing them in all their varieties, of studying their causes, modes of development, characters, and peculiarities in different individuals and under different circumstances. He had likewise an ample opportunity of comparing the advantages obtained from the employment of the various modes of treatment. The simple assurance of his having collected with care eleven hundred cases, and treated nearly three thousand patients, is calculated to recommend the fruits of his observations to respectful attention.

On commencing the exercise of his profession, our author appears to have been completely tied down to the principles and practice then almost universally held by the profession. He confesses that he was too freshly imbued with the lessons of Professor CULLERIER, to think of any thing else than putting his instructions into practice. All his patients, therefore, were submitted to the mercurial treatment, and, with very little variation, the exact rules laid down in the works of SWEDIAUR and M. LAGNEAU, followed. If a soldier returned to his wards shortly after leaving them as cured, or presented an ulcer, bubo, or wart, which he pretended were not owing to a fresh infection, he immediately concluded either that the patient had eluded his vigilance, and neglected the mercurial course, or that sufficient mercury had not been administered for the destruction of the virus. At once, therefore, recourse was again had to the mercury, which was administered more freely than before.

> "I was often," says he, "surprised at the tenacity of the virus, which in some patients resisted three or four courses of mercury, but authorized by my classic authors, attacked it each time with the same arms under different forms. I smiled when a poor conscript ingenuously told me that he had never any symptoms of syphilis, but that the surgeon of his regiment had nevertheless assured him that the excrescences which developed themselves about the anus, during his journey, were venereal. Have you ever been with women, I demanded? If he replied in the affirmative, I then unhesitatingly told him that he had contracted syphilis, d'emblée,* whilst if the answer was to the contrary, I gave him to understand that he might have received it from his parents. On both suppositions I pronounced it equally the pox, and felt tempted to address him in the phraseology I had long been accustomed to hear every morning from one of my old professors, 'you are rotten to the marrow of your bones.' He was thereupon condemned without mercy to pass through the routine of grand re-

---

* A term used to imply a reception of the virus into the system without any previous alteration or affection of the genital organs. By means of this ingenious invention the believers in a specific virus are enabled to slide over many difficulties, to their own satisfaction at least.—REVIEWER.

medics. In merely doubtful cases, I always preferred submitting my patients to a treatment of *precaution*, to leaving them exposed to the long series of evils which I believed the virus capable of producing."

There are few even at this day who will not recognize most of the views, here presented by our author, as their own, either at the present, or some other period of their lives. With but few exceptions they were certainly the reigning doctrines when we first walked the wards of hospitals in pursuit of instruction. Our author's account of the difficulties that so frequently arose from a rigid adherence to the old views, and the manner in which he was led on by observation to the adoption of others, is both interesting and replete with instruction for those who may yet be travelling in the old road. He found himself like all other practitioners, if they would but confess it, very much embarrassed in distinguishing between ulcers which were venereal and such as were not.

"I knew," says he, "that many lazy soldiers, to get clear of active duty, were in the practice of forming ulcers upon the prepuce by means of caustics, for the cure of which they were immediately placed under my direction. On the other hand, I was aware, that other soldiers, to avoid the mercurial treatment which they dreaded, attributed the ulcers, that showed themselves after impure connexion, to chafing, masturbation, or hard drinking. It therefore became equally important to avoid error, and becoming the dupe of such patients. At first, I fancied, that by the aid of signs laid down by authors as pathognomonics of syphilis, I could readily distinguish between the different species of ulcers which I had to manage. But in this I was mistaken. It often happened that I met with many ulcers upon the same individual, each of which presented a different aspect, one being syphilitic, another having no such appearance. Resorting to mercury as the touch-stone, I have seen those disappear which I did not consider venereal, whilst others with the characteristics became aggravated. If I only employed local emollient baths, and mucilaginous drinks, I sometimes saw veritable chancres speedily disappear, and all the symptoms give way. In other cases I encountered all the marks of syphilitic ulcers strongly determined, admired and pointed them out to the students present at my visit, and have been told the next day that the sores were produced and kept up by the diurnal application of caustic. It was, after many similar observations, that I was induced to regard the various forms presented by ulcers, as the products of irritation diversified according to its intensity, duration, and seat, and to believe that the pretended symptoms of syphilis did not depend upon the action of a virus. In this manner was I convinced by my own observation, supported by the testimony of others, that ulcers of the glans, skin of the penis, and scrotum, have a different aspect from those of the prepuce, and that marks, such as callous edges, perpendicular cut, hardness at the base, &c. given as pathognomonics, rarely belong to these last."

Our author experienced further embarrassments from what he observed relative to the nature and characters of buboes, which he saw making their appearance after mild gonorrhœas, ulcers without the *specific aspect*, and after superficial excoriations occasioned by mechanical violence. In all these cases, he found them the same. Regarding their development as similar to that which ordinarily attends irritation of the lymphatic ganglions, he often treated them in accordance with this view by the application of leeches and emollient poultices, and in this way procured the resolution of such as he had believed decidedly venereal. Even when these suppurated, and their edges ulcerated and became callous, they were cured by a treatment adapted to simple irritation. These observations led our author to think that syphilis in its primary stages ought to be associated with the ordinary phlegmasiæ, and receive the same treatment. But as yet he had not doubted the existence of a virus, but only considered the inflammation it occasioned as not specific, although he believed in the necessity of destroying the morbid principle or cause by mercury. Subsequent experience, however, led him to observe the frequent inefficacy and often injurious effects of this universal remedy, and to doubt its infallibility. "I was," says he, "forced to the conclusion that mercury had no direct action upon the virus, and did not neutralize it."

Upon the faith of these observations he was finally led to treat constitutional syphilis occurring in soldiers of delicate and irritable habits, in whom the use of mercury occasioned numerous inconveniences, by such other means as he thought would be judicious if no specific cause existed, and instead of the result being merely palliative, he was surprised to find cures. He even ventured to discharge these patients without the exhibition of mercury, and found that their cure was complete.

> "What reflections," he observes, "did these new and unexpected observations lead me to! Can the cure be perfect, I inqured of myself? Will not the poison give rise to new accidents? But does this virus which occasions me so much embarrassment really exist? And am I not frightened by a phantom? It is true all authors admit it, but all the facts which have gathered are opposed to the principles, which proceed from its admission. And is their testimony of no value? Having once doubted, my imagination set to work, and I sought by every possible means to gain new lights. For this purpose I made fresh observations. I imagined that the virus did not exist, and endeavoured to account without it for the phenomena attending on syphilis. I treated patients without mercury, and read with a spirit of scrutiny and suspicion those authors whom I had until now believed to the letter. I examined the basis of their theory, traced their most accredited opinions back to their sources, and learned from these investigations that authors have successively copied from each other, admitted the existence of a venereal virus without sufficient proof, and that the whole prevailing theory rested upon a sandy foundation, susceptible of being swept away at pleasure."

We have been the more inclined to present the train of observations and inquiries which ultimately led our author to change his opinions, inasmuch as the account furnishes a history of the experience of many 'others who have been interested in similar investigations. It is hardly necessary for us to say that many of his tenets have long been advocated in this country, though as before stated, by comparatively few. We would not therefore have it supposed that we present them as new and unknown, although some of them will doubtless be recognized as such.* But these doctrines, though founded upon the firm basis of experience and reason, have hitherto been so generally sacrificed and forsaken for those of the old school, that they will, in the shape presented by our author, gain new force, and bear down obstructions too strong to be removed by former well-directed but less regular attacks.

Notwithstanding the entire change in his views, M. Des Brus was still for a while bound down to an observance of the old routine practice, being at the time of his conversion obliged to conform to the orders of a surgeon in chief. The appointment, however, of this superior to another station, left the field entirely open to Des Brus, and he was not long in seizing upon the advantage. Accordingly he put almost all his patients upon a treatment without mercury. Under the name of saccharine powder he administered pulverized sugar to them in the form of glosso-palatinal frictions, watching to see that they used it with sufficient confidence to tranquillize their minds, and believe the medicine indispensable for their cure. The results were most satisfactory. Primitive as well as secondary symptoms readily healed, and relapses were no more frequent than after the old method, inconveniences were rare, and the general health less impaired.

> "The reader," says he, "will judge of the importance of these results by the numerous facts which he will find in this work. Experience has sanctioned my method: let him try it, and he will be easily convinced of my veracity."

Of one thousand six hundred and fifty-five patients admitted by him into his wards from March, 1823, to August, 1824, three hundred and forty-two were subjected to the mercurial treatment, that he might be able to compare the effects of the two plans.

---

* As early as the year 1808, Dr. Rousseau, of Philadelphia, published in the fourth volume of the Philadelphia Medical Museum, views relative to venereal affections closely allied to many which are brought forward by Des Brus. Dr. Rush, in his Comments upon Sydenham, has most happily anticipated the present era, by observing that he had no doubt the time would come, when syphilis, like all other diseases, would be treated according to general principles. Dr. Chapman's opinions relative to venereal affections have in many respects been for years in accordance with those of the new school. Dr. T. Harris, of the U. S. Navy, has shown himself a very able advocate of the rational plan of treating syphilitic affections.

We shall conclude this account of our author's introduction with a passage relative to the prejudice and opposition which those have to contend with, who dare to step aside from the old beaten track and strike out paths of their own.

> "In openly attacking," he observes, "a theory which four centuries of observation seem to have rendered unshaken, which has been sanctioned by the most illustrious men whose opinions have ever enjoyed popularity, I am sensible that I expose myself to the choler of the numerous partisans of morbid entities, vices, and a virus, and to be treated as a worthless blasphemer. For I know with Madame De Staël, that all opinions differing from the prevailing spirit, whatever this may be, offend the vulgar, and that human reason habituates itself to servitude even in the field of philosophy and the sciences. But what care I for the clamours of such persons; provided I succeed in gaining the attention of the industrious and impartial student, and cause some practitioners to doubt, my objects will be accomplished. It is doubtless very difficult to convince prejudiced men, and I cannot flatter myself with being able to effect alone the useful revolution which the state of the science demands, but other practitioners possessing more influence over public opinion will at length raise their voices to overthrow that theory which is a shameful monument of the credulity of our predecessors I believe the moment favourable for calling the attention of physicians to this obscure point of medicine minds are at present eager for truths, weary of hypotheses, and attach importance to nothing but well-attested facts."

The title to the first chapter of our author, "la syphilis n'est point une maladie nouvelle," lays open a highly interesting field for inquiry, but one which has of late years been so ably examined, as to leave little room for new research, or for doubting the position of our author. Was the point once decided in the affirmative, that there really exists no specific venereal virus, it would render attempts to establish the position entirely superfluous; and, were there no other reasons of sufficient weight to disprove the American origin of this malady, the lights of history alone would afford ample demonstration. In the discussion of this matter we are sure that our opinions rest perfectly free from the influence of national prejudice. We do not feel that the honour of the western hemisphere is at all at stake in the decision, and could the American origin of this very unseemly disease be clearly substantiated, the only reflection we should perhaps be tempted to make in reference to the subject, might be, that the new world was not altogether exempt from that alloy of evil which a wise Providence has every where else blended with his choicest favours.

As however we cannot expect that our own conviction will be unreservedly admitted by others holding a different faith, or whose minds have never been completely set at rest upon the question, we shall proceed to state the most conclusive evidence which our author has brought to bear upon the question.

Previously however, we beg leave to refer to a few of the leading speculations of former days, to show that such existed, and were doubtless held in equal veneration with those of later date. Thus in 1519, CORADIN GILINI pretended that as a consequence of the conjunction of Mars and Jupiter, on the 16th of January, 1496, in a warm and humid sign, there arose vapours from the earth and water, which, inflamed and put into action by Mars, corrupted and changed the air, and engendered those bad humours which occasioned the disease. But the greater number of the believers in astrology were disposed to lay the blame upon the eclipses of the sun and moon. Some, who perhaps entertained less faith in the influence of the planets, started the singular opinion that the true source of the poison was to be found in the wine casks of Somma, a village near Mount Vesuvius. The Spaniards, they say, compelled to retire from this place, added to the wine they abandoned, all the blood which they could draw from the sick in the hospital of St. Lazarus, a sophistication which rendered the liquor poisonous, so that it communicated disease to those who succeeded them. This fable is however eclipsed by another, maintained by one LEONARDO FIORAVENTI, who had the facts from no less an authority than the son of a butcher to the army of ALPHONSO, king of Arragon, which prince, as is well known, carried on a long war against the duke of Anjou. In this state of things the provisions on each side becoming at length exhausted, the suttlers of the two armies, impelled by the desire of gain, had recourse to supplies of human flesh; from the eating of which the disease in question originated. In corroboration of this opinion, the author asserts, that he had made many experiments upon dogs as well as pigs, the result of which was, that animals nourished upon food of their own kind, have their bodies covered with pustules, lose their hair, and perish miserably. These last observations were subsequently confirmed by other authorities, and, with the preceding, amply suffice to show the darkness which then overshadowed the medical art, and the ineffectual groping of its followers. Under these circumstances, it is no way surprising that when SCHMAUSS, a professor in the school of Salzbourg, in 1518, started the new idea that the disease was brought from America, upon the ground that this country alone produced guaiacum, then regarded as the specific provided by nature for its cure, he should have gained so many adherents, since the wild theories, then in vogue, could only have been entertained for want of better. Its plausibility, at least, is amply attested by the fact, that it has kept its ground very generally ever since, and even now has its numerous and firm advocates.

The opinion of Schmauss, as established for the most part by the influence of Girtanner and Astruc, sets forth that syphilis was unknown in Europe until introduced by the followers of Columbus, who had received it in their intercourse with the savage women of the New World. That many of those who had contracted the disease either in America or Spain, joining the army of Gonzalvo, took the virus with them into Italy and communicated it to the prostitutes of Calabria and Naples, by whom it was transmitted to the French army, after which it soon spread over the rest of Italy, to France and other parts of Europe.

Let us examine how this general belief is sustained by historical testimony. On the 4th of March, 1493, Columbus debarked from his first voyage, at Val-de-Parayso, near Lisbon. After spending nine days in the Portuguese Capitol, he set out for Seville, where he arrived on the 15th of the same month. From thence he went to Barcelona, and arrived there about the middle of April. Now it is distinctly recorded that the Spanish army under Gonzalvo, did not arrive in Italy until the month of May, 1495, before which time we have the clearest accounts of syphilis being in Rome, namely, in 1493, as recorded by Infessura and other Italian writers of that period. It is, therefore, impossible that the troops of Gonzalvo should have been the first to carry it into Calabria, and, as we think, totally incredible that in the course of three months after the arrival of Columbus and his followers, (the number of which, originally only one hundred and twenty, had been reduced by the establishment of a colony of thirty men on the island of St. Domingo, and other causes,) it should have been spread by them to Berlin, Hallé, Brunswick, Meclenburgh, Lombardy, Auvergne, and other countries, where it is demonstrated to have existed, by the accounts of Zorella, Alexander-Benoit, Capreoli, Fulgosi, Sabellico, and others.

For proofs that the various forms of syphilis were known to the ancients, M. Des Brus refers to the work of Professor Gruner, which contains a crowd of passages relative to the subject, extracted from the Greek, Latin, and Arabian writers. He also thinks that an attentive perusal of the books of Hippocrates, *De natura muliebri*, *De morbis mulierum*, and others, will lead to a conviction that the descriptions there given of ulcers and other affections of the genita parts, suppurations of the inguinal glands, etc. correspond perfectly with the symptoms now styled venereal. In support of this disputed point, we shall cite but few, of many authorities, as quite sufficient for its establishment. The first is CELSUS, who in his sixth book and eighteenth chapter, describes, with an accuracy leaving no room for doubt, the most ordinary effects, both primary and secondary, arising from impure sexual intercourse, among which are phymosis and paraphymosis, attended with discharge and ulcers, the last being particularly mentioned as situated on the interior surface of the prepuce, on the glans, and penis itself. The same prescriptions which he advises for the treatment of some of these affections, he likewise speaks of as applicable to the ordinary secondary symptoms affecting the tonsils and palate, together with ulcerations of the mouth and nose. "Eadem autem compositio tonsillis, uvæ madenti, oris nariumque ulceribus accommodata est." The whole chapter is replete with evidence in favour of our position.

The second reference we shall make is to the Bible, where, in addition to the attestations furnished in other parts and frequently quoted, we would call the attention to a comparison instituted by the psalmist between spiritual and bodily infirmities, in the following expressions:

> "There is no soundness in my flesh because of thine anger; neither is there any rest in my bones because of my sin. For my iniquities have gone over my head: as an heavy burthen, they are too heavy for me. My wounds stink and are corrupt because of my foolishness. I am troubled; I am bowed down greatly; I go mourning all the day long. For my loins are filled with a loathsome disease; and there is no soundness in my flesh. I am feeble and sore broken. I have roared by reason of the disquietness of my heart. My heart panteth, my strength faileth me: as for the light of mine eyes, it also is gone from me. My lovers and my friends stand aloof from my sore; and my kinsmen stand afar off."*

If there be no allusion in this passage to that "loathsome disease of the loins," of which we are treating, we must confess ourselves greatly at a loss to conjecture, what other bodily disorder, proceeding from "sin and foolishness," and thus situated, could have been intended.

Of the writers of comparatively modern times, who have treated most unequivocally of venereal affections, we shall cite but two or three, as quite sufficient for our purpose.

RHODIUS, in his notes to SCRIBONIUS LARGUS, mentions the death of a prince of Padua, in 1355, in consequence of an inveterate disease contracted in the 'privy parts from excessive intercourse with women.'

---

* Psalms, xxxviii. v. 3, 4, 5, 6, 7, 8, 10, 11. Other passages bearing upon the same point may be found in Leviticus, chapters xiii xv. xx, and Numbers. chap. v.

Salicet, a surgeon who lived in 1270, devotes a whole chapter to pustules and other corruptions which manifest themselves upon the penis and around the prepuce, arising from intercourse with public women.

Gardonnius, who lived in 1303, treats clearly of diseases arising from impure sexual connexion. In a chapter entitled *De apostemate in inguinibus*, he says, that the affection called bubo of the groin, is occasioned either by a cold disease thrown from the liver towards parts which are weak and empty, or by a warm influence, as when a man happens to have his penis corrupted from intercourse with an uncleanly woman.

With respect to the true source of syphilitic complaints, no one, we think, who examines the subject with candour, and the help of the lights recently shed upon it by able investigators, will be able to believe that the title so long vested in America as the original fountain, can be maintained with the slightest plausibility. The assertion of the celebrated Astruc, that "syphilis is never engendered in Europe, neither by bad regimen, nor by any abuses of nature, but is kept up by foreign leaven, which perpetuates or rather renews itself continually," we consider as baseless and erroneous in the extreme. Well-attested instances of the spontaneous production of the various forms of syphilis, are in fact so extremely numerous as to make one hesitate which to cite first. Not a few have fallen under our immediate observation, and we have consequently long been a firm believer in their spontaneous origin, from too active excitement of the genital organs, or other causes with which we may not be acquainted. Venereal affections are doubtless coeval with the vice of promiscuous and excessive venery, and may be regarded as an effect of that undeviating law of nature, by which evil consequences are made the invariable attendants upon excesses. Could it indeed be reasonably supposed, that a female should have frequent intercourse with several men, and experience no inconvenience from thus committing violence upon nature, and interfering with her most important function. A different result might certainly be expected. Organs so admirably formed and exquisitely endowed, could not escape injury from mechanical violence with other causes of excitement. A high degree of irritation and even inflammation must necessarily ensue, and the secretions from the parts be changed into foul and acrimonious discharges, rendered perhaps still more so from intermixture with the most acrid of animal secretions. Who will deny that these consequences, with all the train of ulceration, etc. cannot take place without the necessity of the American leaven. Even before disease has manifested itself by any external appearances, the over-excited genital organs may impart to their secretions virulent properties, capable of producing active disease, when applied to a very sensitive and irritable surface on another person. There is, in our opinion, no security against venereal contagion, where either of the parties is addicted to frequent promiscuous intercourse. Appearances of health, under these circumstances, are never to be trusted.

But why has the last of the fifteenth century been so generally fixed upon as a period when syphilis made its first appearance in Europe? The following reasons we think may be given in answer to the question. It would appear from various accounts written at the time, that exanthematous diseases prevailed extensively, and particularly in the southern parts of Europe. As the most authentic records represent the age as one of extreme licentiousness, it is natural to infer that venereal affections were very prevalent, and that eruptions usually attendant upon them may have been often confounded with cutaneous diseases arising from other causes. The term syphilis, the derivation of which is quite uncertain, was no doubt applied in the times to which we allude, to designate epidemic exanthematous affections, though since confined to those morbid symptoms arising from impure sexual intercourse. It is our opinion that new diseases much less rarely occur, than that old ones are lost sight of, or cease to be clearly recognized, either from changes in the nomenclature of our predecessors, or the obscurity of the terms and imperfect descriptions they have left us. Upon these suppositions only can we satisfactorily explain the accounts we have of syphilis prevailing as an epidemic, and acquiring successively the popular designations of Neapolitan, French, and Spanish disease.

We will conclude our remarks upon this part of M. Des Brus's treatise, by observing that the proofs of the existence of all the forms of syphilis prior to the discovery of America, are sufficient to overwhelm all the arguments to the contrary ever brought forward by Schmauss, Girtanner, Astruc, and all their adherents. Those who feel curious to inquire more into the subject, we would particularly refer to the work of M. Des Brus, and also to the able "Historical and Critical Observations on Syphilis," by Jourdan, a translation of which into English, may be found in the third volume of the Philadelphia Journal of the Medical and Physical Sciences.

We have now arrived at a subject much dwelt upon by M. Des Brus, and one for which we anticipate much greater opposition, than any other topic connected with these investigations—namely, *the non-existence of the venereal virus.*

The existence of such a matter or substance as that called the venereal virus, has until very lately been so firmly and universally believed, that persons venturing to doubt it ran more risk of being denounced as visionary and sceptical, than of attracting any respectful attention to their opinions. When it is considered that the actual being and presence of a specific poison, constitutes the basis of all former pathology and practice in syphilis, it may be readily conceived that the consequences of the contest are of the highest importance, as the establishment of the new doctrine would be like erasing from a tablet the useless records it contained.

But lest it might be inquired what we mean by the term *specific virus,* we will anticipate the question by answering, a morbid secretion, which applied to the animal system, produces a peculiar action, similar to that by which it was generated, manifested by a regular and uniform train of symptoms. As examples we refer to the secretions in the well known diseases variola, vaccina, and psora.

Let us see what success is likely to follow the reasoning, observation and experience which may be advanced to disprove the existence of that morbific matter asserted to have been first introduced into the old world from America, and which has been characterized by various writers as an inflammatory, acrimonious, corrosive, acid, alkaline, glutinous, sulphurous, and even electrical substance.

The first argument advanced by M. Des Brus in favour of his opinion is founded upon a position laid down by CICERO in his second philippic, namely, "that nothing is less worthy of a reasonable man than to oppose against one with whom he may have a dispute, an opinion which the other has only to deny in order to stop short all opposition in his opponent, and to show that it ought to be rejected, seeing that it only reposes upon a fable destitute of all proof." Upon the strength of this classic logic, M. Des Brus calls upon the believers in a virus to demonstrate its existence, and to say what it is, and where it is.

The *contagion* of venereal affections affords, perhaps, the strongest proof in favour of the existence of a specific venereal virus. But it must be observed, that the form communicated is not, as has been strenuously maintained, always of the same character with the original affection, individuals contracting their diseases from the same source, often presenting the most different trains of symptoms. As well, M. Des Brus thinks, may it be argued that the coryza attending inflammation of the mucous membrane of the nasal cavities, depends upon a specific virus, because the secretion applied to the same membrane of healthy persons, will, as he asserts, excite a similar affection. The same results follow the application of a morbid secretion from any other mucous surface when applied to one in a sound state. That of the eye in purulent ophthalmia is adduced as a familiar illustration. In these cases it is manifest that the secretory organs are deranged and their discharges altered, and that they acquire from inflammation qualities sufficiently acrimonious to produce an irritation in the parts to which they are or may be applied. Why, it may be asked, may not the same thing take place in venereal irritations.

M. Des Brus cites very many interesting cases to prove that the syphilitic affections propagated to several sound persons who may have had connexion, about the same time, with the same infected person, unlike what might be expected from the direct application of a specific poison very often differ greatly from each other. Of the truth of this our own observation has furnished the most ample evidences. Appealing, however, to the examples cited by him, we shall at the same time present his rationale as illustrating very clearly the views he takes of the subject.

> "Six friends," says he, quoting from Vigaroux, "after a hearty repast, had connexion with the same girl, who communicated the pox to them all. The disease, however, manifested itself among them with different symptoms. Two of them had chancres and buboes; two others, gonorrhœa; the fifth had a chancre; and the sixth a single bubo. One of those who had chancres and buboes was soon cured by a regular treatment with frictions: the other with the same affection, had his bubo to suppurate, the skin to separate, become spongy and perforated. He became dejected, salivation took place; the submaxillary glands became engorged; the discharge from the chancre ichorous; he lost his strength, and sunk. He who had only a chancre, burnt it out, and experienced no inconvenience after marriage, his children proving healthy. Of the two who had gonorrhœa, one experienced it in its mildest form, whilst in the other, on the contrary, it was attended with exceeding virulence, and resisted the efforts made to cure it, for ten months."

In relation to this case, M. Des Brus observes—

> "In vain may we seek to account satisfactorily for these different phenomena, otherwise than by referring to the different excitability of the several patients, and to the various degrees of inflammation occasioned by the connexion. This affords the only rationale, which will apply equally well to them all, whatever may have been the irritating principle which produced the disorder. Let us suppose that these six individuals had been exposed to the contact of certain vegetable juices, alkalies, acids, corrupted animal matters, etc. The effects produced we should account for thus:—With two of the persons alluded to, the irritation occasioned by the excitant predominating upon the

extremity of the mucous coat of the urethra, would cause this to inflame, and it being the property of inflammations of the mucous surface, to give rise to a mucous discharge in greater or less abundance the affection we call gonorrhœa would have been produced. One of these patients presenting a greater excitability of this part than the other, or the inflammation having manifested itself with more violence, the result was a difference in the intensity and duration of the disease. With two others, either from greater sensibility of the glans, or the more intimate application of the irritating fluid to this part, ulcers were produced upon it; the irritation propagated along the lymphatic vessels to the inguinal glands, gave rise to a bubo, in the same manner that we see swellings of the sub-maxillary glands occasioned by salivation. In the first the symptoms were perhaps dissipated by the mercurial treatment producing upon the excretory organs and lymphatic system in general, a true revulsion to them of the irritation seated upon the genital organs. With the other, either because the glandular inflammation was too profound, or that it had been aggravated by the stimulus of the mercury, suppuration took place, the cellular sub-cutaneous tissue was destroyed, and the skin left without support, sunk down—a prey to disorganizing inflammation, it wasted away, becoming thin and perforated. On the other hand, irritation of the salivary organs was produced by the mercury, the mouth became tumid, as well as the sub-maxillary glands. The gastric viscera participated in the excitement as happens on ordinary occasions. Hence loss of strength, ichorous suppuration, dejection, and finally death. With the sixth, the excitement of the penis not sufficient to establish an ulcer, was nevertheless capable of exciting sympathy in the inguinal glands, which, predisposed to irritation, swelled in the same manner that they are seen to do after a prolonged march."

Should the believers in the specific virus attempt to explain the varied effects observed in the cases just related, by ascribing them to the different dispositions of the individuals, we would reply, such indeed *may have been* the case, but why resort to obscure hypothesis, to explain what may be satisfactorily understood without.

But how can we resist the positive proofs of a virus furnished in the experiments of Mr. Hunter, who, by inoculating with venereal matter, produced that disease in sound persons. Those who will take the trouble of examining the records of these experiments with attention, will not, we think, feel bound to believe in the existence of a specific venereal virus. All the results observed will admit of the easy mode of explanation which has already been applied so satisfactorily by M. Des Brus, to the solution of other cases. Many experiments of inoculating with venereal matter, similar to those of Mr. Hunter, have been made in France, by MM. Dubled, Bertin, Dupau, Des Brus, and others, which show that the matter of gonorrhœa and chancres rarely produce any lasting effects, when applied and even inserted into other tissues, except those with which they usually come in contact during the act of coi tion. Venereal pus, it is true, *may* become the cause of an ulcerative inflammation, but under these circumstances the phenomenon is *purely local*, and like other inflammations, may give rise, either through sympathy, or continuity of tissue, to various changes in the neighbouring or distant organs.

It would appear that the believers in a virus have in France, lately availed themselves of the unhappy results of an experiment by inoculation, for the support of their position, which, like certain religious appeals, are calculated to take stronger hold on the prejudices and feelings, than on the reason. This circumstance we shall relate in the words of M. Des Brus, giving at the same time his comments.

> "In opposition to my reported experience, there will doubtless be cited the results, obtained by three young physicians who inoculated themselves, which have been pompously announced in the medical journals. Each of the three, it is said, made a puncture in the arm with the point of a lancet, charged with syphilitic matter. In one, swelling of the axillary glands took place, which, treated by antiphlogistics alone, went on to suppuration, and produced considerable injury of the axilla. In the second, the puncture inflamed and ulcerated; a chancre presenting *all the venereal characteristics*, established itself, and made extensive ravages. But admire how far the love of the marvellous will carry us: it is pretended that this young man, after consulting a professor of the medical school, who told him that the ulcer was *venereal*, and that he must resort to mercury, went into the hospital and opened the crural artery!!
>
> "What, this young physician, who, inflamed by the laudable desire of throwing light upon an obscure point of science, had not scrupled to try upon himself an experiment reputed dangerous, and who had been led by observation to question the evidences of a venereal virus, to lose both reflection and courage so as to be driven to commit suicide; merely too because a professor had told him he had the pox! And what great matter was there even if it had been so? Could he not have resorted to mercury for its removal, if, confiding only in the edicts of the professor, he was not able to rid himself of the idea that the employment of that medicine was absolutely necessary? Or, was he determined by shame or vexation not to survive a defeat? The supposition cannot be admitted, for what did the ulcer with which he was affected prove? Nothing more than that the pus applied had acted as an irritant. Now it is not probable, that before submitting to the inoculation, he could have been ignorant of the circumstance, that inflammation often gives to the fluids secreted on parts where it is seated, acrimonious and irritating properties: that accidents often occur from scratches made by instruments impregnated with the sanious humours of a wound or dead body: and he ought to have been familiar with many facts similar to the following, reported by M. Bégin. Opening, with M. Broussais, the body of a man who had died of gastro-enteritis, accompanied with adynamic symptoms, M. Bégin experienced an insupportable sensation of burning, in consequence of having touched the intestinal contents, and had likewise a considerable swelling of the hand, as well as an abscess upon one of his fingers, although neither he nor M. Broussais, *who experienced similar inconveniences*, had been wounded by the knife. Every thing, therefore, conspires

to render it likely, that the subject of this experiment was driven to suicide by other causes."

The case of the third young man is reported to have presented *divers positive symptoms of a venereal infection.*

"It is greatly to be regretted," says M. Des Brus, "that these young men have offered no conclusions upon their observations and experience. Their testimony would then have had more weight, and might have served to confirm or disprove the conclusions which it has been attempted to draw from them."

M. Des Brus thinks that the symptoms exhibited in these three experiments, do not at all establish the existence of a virus. That, in the axillary engorgement of the first, there was nothing extraordinary. Among other circumstances referred to, in order to explain the phenomena, he cites some of interest from his own personal experience. On one occasion, having received, whilst opening a dropsical subject, a slight cut upon one of his fingers, pain in the arm soon ensued, together with violent inflammation, and swelling of the glands in the axilla, which were subdued by leeches and other appropriate means. These symptoms were attended with an acute gastro-enteritis, produced from the ganglionic irritation, referred to the mucous coat of the intestinal canal, succeeded by a pustular cutaneous eruption on the trunk of the body, so that it was only necessary that he should have been inoculated with venereal matter, to have constituted a case of syphilis. All this and more is adduced, to prove that the axillary engorgement in the young experimenter, did not proceed from the introduction of a specific virus.

The ulcer which manifested itself on the second, was nothing uncommon, since a splinter, or the acrid juice of any vegetable might have produced the same effects. As to the characters of syphilis, M. Des Brus demands what else they are than the ordinary products of irritation. So much, therefore, for the evidences of a virus furnished by inoculation.

It has been our own lot to witness many instances, in which symptoms have occurred from other causes, not to be discriminated from those ensuing to venereal affections taken in the usual way. Of these we will take the liberty of mentioning one, the case of a widow lady of cachectic habit, who was suddenly attacked with an alarming sloughing ulcer just above the heel of the right foot. After the loss of considerable substance, the ulcer healed under the use of generous diet and tonics. About two weeks afterwards, however, a swelling took place in one of the right inguinal glands, which proceeded rapidly to suppuration, and on being opened, discharged most abundantly a thick pus. This soon got well under the treatment previously prescribed.

About a week or ten days after the removal of the inguinal affection, she was attacked with severe colick, accompanied with spasms, and strong indications of a disordered condition of the digestive organs, soon after recovery from which, she went into the country, staid about three weeks, and returned apparently in better health than she had enjoyed for a long time. In a few days, however, she complained of soreness about the bridge of the nose, where there existed a considerable redness. A wash of lead water and laudanum was directed externally, and internally the decoction of sarsaparilla, along with colomba. A plain nutricious diet was enjoined. The soreness was relieved and the redness disappeared in the course of three or four days, and we now thought every thing right again. In about three weeks. however, we were called upon by the same lady to witness a papular eruption on the hands and arms, which, however, soon disappeared, and proved the finale. We regard this case as illustrating most happily the chain of connexion subsisting between the various tissues and organs of the body, and the manner in which impressions are transmitted from one to another. In a cachectic state of the system, produced most probably by a derangement of the digestive organs. the heel became the focus of morbid irritation, probably first set in motion there by some injury too slight to be noticed. From thence it was propagated successively to other parts, according to laws regulating the phenomena of diseases. Had we not witnessed the primary affection, and our patient been in any degree susceptible of a suspicion of venereal indulgence, (which was altogether impossible,) no human power, we believe could at that time have convinced us, that the venereal virus was not at the bottom of the case. Here then we have the usual consecutive phenomena attendant on venereal affections, without the presence of a specific venereal virus.

All who have possessed opportunities of paying much attention to venereal affections, must have frequently witnessed the transition of the inflammation and irritation attending upon simple gonorrhœa to the glandular system producing soreness in the lymphatics of the penis; swelling of the inguinal glands, testicles, etc. rheumatic affections of the muscular and membranous tissues, irritation of the mucous membrane of the fauces and other parts, cutaneous affections, etc. in fact, all the symptoms commonly observed to follow venereal sores. Now, if it can be demonstrated that a similar train of symptoms may be produced by other means, and entirely without the agency of venereal matter, it results that there is no necessity for the agency of a specific virus, in order to explain the rationale of syphilitic affections. We have seen a simple warty excrescence which ex isted on the prepuce for several weeks as the only evidence of an impure connexion, converted by the injudicious application of caustics and other means used for its removal, into a foul and irritable ulcer, deep, livid, surrounded by callous edges, and withal exceedingly obstinate to heal, giving rise subsequently to a tedious and inveterate train of constitutional symptoms. And yet such warts under ordinary circumstances are readily removed by simple applications, and seldom or never, according to our experience, occasion any other than mechanical inconvenience, unless some such violence as that above described, has been applied to the tissue. We have therefore no hesitation in believing that under such circumstances it is not a virus which does the mischief, but irritation and inflammation roused and determined in its natural direction, a doctrine which we think applicable alike to all manner of venereal affections.

M. Swediaur, the firm champion of a specific venereal virus, has reported a most admirable experiment performed upon his own person, which we think should have taught him different views from those he maintains in his work upon syphilis. By injecting a strong solution of sal. ammoniac a very little way into his urethra, he produced thus artificially a most virulent gonorrhœa, attended with a purulent discharge, ardor urina, nocturnal erections, chordee, irritable bladder, and all the usual concomitants. He was six weeks in performing a cure. The case, which is detailed at considerable length in his book, is well worth referring to.

Should we be asked whether we think M. Swediaur, with this artificial affection, was capable of communicating disease to a female by having connexion with her, we would unhesitatingly answer, yes; just as effectually as if he had originally derived it from venereal intercourse.

We find in books the most prolix descriptions of the various sores observed to proceed from impure coition. The nicest distinctions have from time to time been drawn between the genuine syphilitic and the spurious, and ingenious classifications founded upon their *sui generis* characteristics. An immense deal of talent and industry have been thrown away upon such fabrications. What has been styled the true primary syphilitic ulcer has been delineated with great accuracy by the genius of Hunter. And yet a late writer, Mr. Carmichael, who has admitted the distinction made by Mr. H. implicitly, with the most ample opportunities afforded him as chief of a large hospital dedicated to venereal complaints, has not been able with all his observation to find more than two or three legitimate Hunterian chancres in many years. It is therefore useless to comment upon the inutility of such a distinction, particularly since it has been demonstrated over and over, that this kind of ulcer, contrary to the positive assertions of Hunter, Carmichael, and many others of great authority, can, like every other venereal sore, be cured without mercury.*

Upon the whole, the pretended characteristics of venereal affections which have served to edify the credulous faithful, and confuse the student and candid inquirer after facts, may be readily demonstrated to be nothing more than the ordinary effects of irritation and inflammation, modified by circumstances now well understood.

> "The ulcer of the teguments of the penis, whatever may have been its origin, seldom bears any resemblance to that of the glans. That of the glans differs ordinarily from that of the prepuce, whilst those of that envelope frequently exhibit great variety of appearance; even at the same time, and in the same patient."

All this variation may be referred to the different degrees of intensity of the irritation or inflammation, and the length of time the ulcers may have existed. Their physiognomy is susceptible of great and rapid variation. These are points to which M. Des Brus has invited particular attention, and which he says will be ever confirmed by close observation of the phenomenon which succeed each other during the development of the ulcers. The original and progressive appearances of these primary affections are thus described by him:—

> "They ordinarily proceed," says he, "either from a slight excoriation produced during coitus, from small white or reddish serous vesicles of the size of a millet seed or pin-head, and of an aphthous appearance, or from a minute pustule on the skin. These vesicles break, the fluid which they contain escapes, and sometimes we find the denuded surface exactly like that produced by the application of a blister, whilst at others it is of a milky white. The inflammation progressing, the sore becomes larger and deeper, extends more or less to other parts, and soon presents an aspect varied by circumstances. Sometimes the edges are thin, pale, and level with the surrounding parts; at others, on the contrary, they are hard, engorged, and elevated above the sore, particularly after the inflammation has lasted for some time: sometimes the centre appears red and granulated, or pale, fungous, and raised above the margins: sometimes excavated, and of a yellowish colour. In some cases a corrosive matter is secreted. The surface is at times perfectly even, or striated, ragged, and of a stellated appearance. Round or oval upon the prepuce, they are generally irregular upon the glans, elongated upon the frænum, round

---

* Notwithstanding, however, the distinctions and classifications adopted by Mr. Carmichael in his treatise upon venereal diseases, the practice which he inculcates, is upon the whole more consonant to reason and the results of recent investigations, than that laid down in any other English book with which we are acquainted.

or oval upon the skin. The irregularity in form generally augments with the progress they make."

After remaining a certain time, the ulcer generally produces a hardness of the part upon which it is situated. This hardness is sometimes like cartilage, and—

> "I have often," says he, "seen the base of the prepuce forming a kind of firm and solid ring around the glans. The number of sores varies infinitely: sometimes there is only one, and then again a great many. The chancre of the genital organs is occasionally observed healing on one part, and at the same time attacking another, under every treatment that may be resorted to."

In fact, it cannot we think be denied, that all the appearances designated as the pathognomonics of primary syphilis have occurred, and may occur without the application of a specific virus. Neither is it to be doubted that those have greatly deceived themselves who have drawn such nice distinctions relative to the infallible characteristics, some of whom have even gone so far as to pronounce their dogmatical opinions upon the bare evidence of the odour exhaled by the pus. The truth is, many practitioners have themselves been the authors of the pathognomonic symptoms, which they have wrongfully charged upon the visionary existence of a *specific virus*, the most simple and harmless sores, having been converted by means of improper washes, ointments, escharotics, general treatment, &c. applied according to a certain routine, into irritable, obstinate, frightful, and most mischievous ulcers, which have not only committed ravages upon the tissues where they were first located, but brought other tissues successively into disorder until finally the whole system has been invaded.

The evidence of a venereal virus drawn from the occurrence of buboes, however strong it may seem at first blush, is altogether without weight when candidly investigated. Their presence in fact proves nothing more than that the irritation has extended from the tissues of the penis, either from continuity or sympathy, to the tissue of a neighbouring gland. They originate from similar causes in other parts of the body, most commonly in the axilla from some affection of the superior extremity or breast. The diagnostics, designating this affection as of a *genuine* syphilitic character, as it is termed, are equally fallacious with those applied for the same purpose to chancre. The labours of Astruc and all his followers in this work, when investigated with attention and candour, will be found vain and delusive.

Like attempts have been made to fix the characteristics of genuine syphilitic gonorrhœa, so that it may be distinguished from the spurious kinds often said to be mistaken for it. But notwithstanding the great ingenuity displayed in the task, every unprejudiced person who will make the investigation for himself, will come to the conclusion that all the phenomena of gonorrhœa depend upon different degrees of urethral inflammation.

> "Thus," says M. Des Brus, "in regard to inflammations of all other parts, we constantly observe a difference in the intensity of the pains, in the derangement of the functions, and in the colour and qualities of the excretions."

It is precisely the same case with gonorrhœa, which originating from similar causes and sources with the other forms of syphilis is, like them a genuine phlegmasia, curable upon the same general principles. Existing usually without any solution of continuity in the diseased tissue, it frequently gets well of itself, and seldom, comparatively speaking, affects the other tissues of the body to any considerable extent, unless when aggravated by peculiar circumstances. Then indeed its effects are transferred to other parts, and it runs its course after the manner of other venereal forms, attacking the testicles, inguinal glands, the mucous membranes of other parts, the muscles, fasciæ, skin, &c. Who that has frequently been called upon to treat gonorrhœa, has not witnessed sudden transition of the irritation from the urethra to distant parts, the ligaments and joints for example, where it has raged with a violence demanding the use of the most powerful antiphlogistics. In such cases the morbid phenomena scarcely perceptible in the original seat, have as speedily returned to it again whilst the affection of the other parts has ceased. Now, who will contend that the virus in these cases has been translated in the space of a few hours, first to distant parts possessing a very obscure and white circulation, and again in as short a time retreated to its primitive situation.

Such, however, is the force with which early impressions and associations are stamped upon the mind, that it is long before we begin to doubt, and still longer before we come to disbelieve in the existence of things and circumstances relative to which we have formed and long entertained distinct conceptions. It is just so with regard to the venereal virus. All who acknowledge its existence, and the number who do not hold with the hypothesis we are persuaded is at present extremely limited in this country, doubtless think that they have a clear idea and perfect knowledge of what it is. But should any of these set out with candour and something like mathematical scrutiny, in search of the object of their belief, we are greatly mistaken if they would not meet with more difficulty than they might imagine, in demonstrating to the external senses, any substance or matter produced by venereal affections, so distinct in its nature and properties from ordinary animal secretions, as to deserve the appellation of *specific virus*, or bear a fair comparison with what are universally recognized as such, namely, those of small-pox and vaccination.

We propose, on another occasion, to continue our exposition of the subjects of M. Des Brus's treatise, promising to dwell more particularly upon those parts of it relating immediately to the practice founded upon the new doctrine. E.

ART. XVI. *An Essay on the Ultimate Principles of Chemistry, Natural Philosophy, and Physiology, deduced from the Distribution of Matter into two Classes or Kinds, and from other Sources.* By LARDNER VANUXEM.—Part I. Octavo, 91 pp.—Philadelphia. 1827.—Carey, Lea and Carey.

THE theories presented by Professor VANUXEM in this essay, are founded, as the title announces, upon a distribution of matter into two distinct classes; and this distribution is proposed in the commencement of the work, with such an air of novelty, that an incautious reader might be led to suppose that it possessed some originality. This, however, is not the case; the proposed distinction being already adopted by all writers on chemistry. The two kinds of matter alluded to, are called by THOMSON, confinable and unconfinable; by DAVY, ponderable and etherial: and by our author, concreting and non-concreting.

The general properties of these two classes are stated in the following extract:—

> "As the one class of particles is known by its tendency to form concretions, or bodies, whose parts cohere together, and are tangible, we have attraction, or gravitation, as its inherent principle, or attribute, and as the other class of particles, on the contrary, exhibit no concretions, nothing tangible, we must conclude that repulsion, the antagonist power to gravitation or attraction, is the inherent principle, or attribute of the non-concreting class. It is in virtue of these two opposing principles or attributes, by which each class of particles is, as it were, held in equipoise or neutralization, when the two kinds of particles act upon each other, that the peculiar attributes belonging to each kind of particles, are enabled to come into action; from whence result all the phenomena which constitute the physical world."

In all this there is certainly nothing new; nothing but what is already familiar to every student of chemistry. But in considering caloric as a cause of repulsion between the particles of ponderable matter, our author conceives that chemists have committed a gross mistake, which he states and confutes as follows:—

> "It is asserted by writers on chemistry and natural philosophy, that caloric, meaning thereby caloric of temperature, is the sole cause of the expansion of bodies, (common matter,) and as a consequence, bodies without caloric must be solid Assuming these premises, it follows, that as the atmosphere diminishes in temperature as we recede from the surface of the earth, (upwards,) there must be a point at which no caloric exists: consequently the matter of the atmosphere there must be of great density; if not absolutely in the solid state. The absurdity of this conclusion is evident, from all our positive knowledge of the atmosphere; the truth, (incontestible,) being that its rarity increases with its height, and its density in the inverse degree. The conclusion in question is therefore a paradox, and clearly shows that from these principles we know nothing of the real cause of the expansion of gaseous bodies."

We freely acknowledge the justice of this conclusion, but we must be permitted to declare, that we have never met with any writer on chemistry or natural philosophy, who asserts that caloric of temperature is the sole cause of the expansion of bodies. On the contrary. every author, from the time of Black, has considered *latent* heat as the cause of the fluid and gaseous state, and the very explanation which is given by our author of the atmospherical paradox, may be found in an article on caloric, in Dr. Ure's dictionary, which he quotes in another part of his book.

In a paragraph immediately following that which we have just quoted, our author observes a curious coincidence which he erects into a general law, and which it is proper that we should notice. It is that the latent heats of water at 32°, and of steam at 212°, are directly proportional to their respective temperatures. In fact, supposing the first to be 140°, and the second 927°, we have 32 : 140 : : 212 : 927, very nearly. We have called this a curious coincidence, and it is not the less so perhaps from the circumstance of its being purely accidental. As the scales of our thermometers have no reference to a natural zero, it is evident that the ratio of the numerical temperatures which they mark is not that of the real temperatures. If we suppose the zero of Fahrenheit to be placed 100° below its present station, the freezing and boiling points of water would be 132° and 312°, and the above proportion would be changed into the following:—132 : 140 : : 312 : 331: but, according to the author's hypothesis, the last term should still be 927. If we use the Centigrade or Reaumur's scale, the first term of our proportion, will be zero, and consequently the last infinite; a conclusion palpably absurd.

It is not our wish to find fault, but we meet with a theory on the next page, to which we cannot give even the sanction of our silence.

"That sensible heat, or caloric, increases as the density of the atmosphere increases, follows of course, and may explain the rise of temperature, when descending into the interior of the earth, when below the point of no variation. This explanation was first given by Dr. Cooper. (Vide Silliman's Journal, vol. iv. p. 243.) A consequence of some importance in the theory of the atmosphere, of the sun, and of comets, follows from the increase of the temperature of the atmosphere with its density. Gay Lussac found, that atmospheric air, when condensed so as to occupy about one-fifth of its volume, became luminous; so that any globe, whose atmosphere is equal to the density of the air in the experiment mentioned, will be permanently luminous; the degree of light increasing as the density of the atmosphere increased."

It seems to us, that these theories are founded upon a misapprehension of the facts. That sensible heat is evolved when air is condensed, and absorbed when it is rarefied, is undoubtedly true; but it is certainly no less true, that these states of temperature are not permanent. In a short time, the rarefied air, under the receiver of an air-pump, acquires the temperature of the surrounding atmosphere; and air under strong compression, very soon parts with its excess of heat, and loses its light immediately. Now it is evident, that if this be the case, the theories which we have quoted, must necessarily fall to the ground.

The author of the essay next proceeds to consider his non-concreting matter, in that state in which it is uncombined or free, and to which, "for want of a better term," he gives the name of "astronomic, gravitating, radiating, or planetary." He supposes the earth to be surrounded by an atmosphere of this etherial matter, subjected, like the air, to the force of gravity, and, of course, having its particles "increased in number and proximity to each other, in proportion to their proximity to the earth." From this "ample store of quiescent repulsive matter," he supposes the caloric and light to be derived, which are, "as it were, called into existence," by friction, by chemical combination, by the explosion of gunpowder, &c. Our readers will judge, in the first place, how far this view of the subject can be considered as new; and, in the second place, how far it affords a specific explanation of phenomena, which have long continued to embarrass the most ingenious philosophers.

The next subject discussed in the essay, which we think it important to notice, is presented in the following extract.

"It has long been demonstrated that attraction is as the weight of common matter. now repulsion, or the antagonist force of attraction, as has already been shown, being inherent to ethereal matter, its action or force must be in the ratio of the levity of common matter. This being the case, it follows that those particles of common matter which are heaviest, will have the least attraction,

> for example, (using caloric to represent the class,) for caloric; as affinity is counteracted by gravity or the concreting power, so on the contrary, those particles of matter which are lightest, attraction of gravitation or the concreting force being less, will have the greatest affinity for caloric; or, in other words, the two forces acting upon each other, the action of the non-concreting attribute will be greatest, where the concreting attribute is feeblest, and feeblest, where the concreting attribute is greatest, or, using the language of chemistry, the capacity for caloric will diminish, as the weight of the atom increases, and increase as the weight of the atom decreases.
>
> "This law, which follows from the action of the two classes upon each other, giving it its simplest expression, namely, *the forces being in inverse ratios to each other*, is fully confirmed by experiment; and it is to MM. Dulong and Petit, that we owe the important facts, whose consequences, it appears, were overlooked, or lost, in a conclusion as singular as it was erroneous." These gentlemen made a number of experiments with different metals, for the purpose of ascertaining their specific heats; and to use the language of Dr. Ure, (Dictionary of Chemistry, article caloric,) 'their result has disclosed a beautiful and unforeseen relation, between the specific heats and primitive combining ratios, or atoms of the metals; namely, *that the atoms of all simple bodies have exactly the same capacity for heat.* Hence the specific heat of a simple substance, multiplied into the weight of its atom or prime equivalent, ought to give always the same product.'
>
> "In examining the table of Dulong and Petit, I found that no conclusion like the one given could be deduced· that the *relation* stated, arose from confounding the product of the specific heat and weight of atoms, with the capacity of the atoms for heat. Whereas, the true and self-evident result of the experiments in questions, is one not only of great beauty, but of the greatest importance in Science, and confirmatory of the action of the two classes upon each other, as has already been mentioned. The conclusion being *that the capacity of atoms for heat increases in the ratio of their levity*, and decreases in the ratio of their density, and it is to this cause solely *that their product is a constant number.*"

Here we are obliged, once more, to differ from our author, and to acknowledge our accordance with the "singular and erroneous conclusion" of MM. Dulong and Petit. It must be observed, that the specific heats found by these experimenters, correspond to equal weights of the substances compared. Thus the specific heat of a pound, (for example,) of water being 1, that of a pound of lead is .0293, and that of a pound of sulphur is .1880. If now, we wish to compare the specific heats of two pounds of lead, and three of sulphur, we must multiply the corresponding tabular numbers by 2 and 3 respectively, and the proportion sought will be that of the products .0586 and .5640. In like manner, if there be two masses of the same substances, of which the weights are in the ratio of 12.95 to 2.011, their specific heats will be in the ratio of .0293 × 12.95, to .188 × 2.011, or of .3794 to .3781, that is, they will be sensibly equal. Now the numbers 12.95 and 2.011, are the atomic weights of lead and of sulphur, and this example may serve to illustrate the law established by Dulong and Petit. Indeed, it must be evident that the specific heat of an atom must be directly proportional to the specific heat of any mass composed of such atoms, and inversely proportional to the number of atoms in that mass. But the greater the atomic weight of any body, the fewer elementary particles will it contain. So that, finally, the specific heat of the atom will be directly proportional to that of the mass, and also to the atomic weight, and will therefore be measured by the product of these two quantities.

It is proper to remark in this place, that the extraordinary coincidence mentioned above, has been proved only in certain solid bodies, and that the deductions drawn from it by our author, and by Dr. URE, even if correct, are far more general than the experiments warrant. This is fully shown by the following table, including three simple gases, examined by MM. BERARD and DELAROCHE, and the simple liquid mercury, examined by MM. DULONG and PETIT.

	Specific heat, that of water being 1.	Weight of atom.	Product, or Specific heat of atom.
Oxygen - -	.2361 - -	1.000 - -	.2361
Hydrogen, - -	3.2936 - -	.125 - -	.4116
Nitrogen, - -	.2754 - -	1.75 - -	.4819
Mercury, - -	.033 - -	18. - -	.594

According to the theory, these products ought to be equal to .3753. (the mean specific heat of the atoms of solid matter,) and to one another, which is far from being the case.

Upon the hypothesis of our author, which we have thus considered, and which we think we have proved to be without foundation, are built nearly all the remaining speculations of his essay. It is explained at large, presented in every point of view, illustrated by diagrams, and finally applied to the explanation of the laws of chemical action and of the phenomena of electricity, light, magnetism, and *life*.

From the task of pursuing a false theory into all its recesses, we must ask to be excused. It would be both unprofitable and unpleasant. The fundamental principles of an essay, coming from a most respectable source, and looked for with high expectations, it was our duty, as reviewers, to lay before our readers, and to discuss with freedom. This we have now done, and here our task must end.

BIBLIOGRAPHICAL NOTICES.

1. *Reports of Medical Cases, selected with a view of illustrating the symptoms and cure of Diseases, by a reference to Morbid Anatomy.* By Richard Bright, M. D., F. R. S. &c. Lecturer on the Practice of Medicine, and one of the physicians to Guy's Hospital. London, 1827. 4to. pp. 231, with sixteen coloured plates.

This splendid volume, the commencement of a work to be continued on the same plan, contains reports of cases treated at Guy's Hospital, London, with beautiful, and for the most part very accurate representations of the morbid conditions found to exist in certain organs in particular diseases. There is no necessity, at the present day, of pointing out the immense advantages, which a large and well regulated hospital affords for studying diseases, or the value of clinical reports; they are sufficiently estimated; we shall, therefore, without preamble, give a sketch of the plan of the present volume, and notice those opinions that appear to be original with its author, and such of his observations as we think will be most interesting to our readers.

The first twenty-four cases are intended to illustrate some of the morbid appearances in the kidneys, observable in those who die from dropsical effusions. Dr. Bright asserts that he "has never yet examined the body of a patient dying with dropsy attended with coagulable urine, in whom some obvious derangement was not discovered in the kidneys;" and on the contrary, where the dropsy has depended on organic change in the liver, even in the most aggravated state of such change, no diseased structure has generally been discovered in the kidneys, and the urine has not coagulated by heat. Dr. B. conjectures the existence of three varieties of organic derangements of the kidneys, in dropsy, all generally attended with a decidedly albuminous character of the urine. In the first, the kidney looses its usual firmness, becomes of a yellow, mottled appearance externally; and when a section is made, nearly the same yellow colour, slightly tinged with gray, is seen to pervade the whole of the cortical part, and the tubular portions are of a lighter colour than natural. The size of the kidney is not materially altered, nor is there any obvious morbid deposit to be discovered. This state of the organ is sometimes connected with a cachectic condition of body, attended with chronic disease, where no dropsical effusion has taken place either in the cellular membrane, or in the cavities of the body. When this disease of the kidneys has gene to its utmost, it has appeared to terminate by producing a more decided alteration in the structure; some portions becoming consolidated, so as to admit of very partial circulation: in which state the surface has assumed a somewhat tuberculated appearance, the gentle projections of which were paler than the rest, and scarcely received any of the injection which was thrown into the arteries.

In the *second* variety, the whole cortical part of the kidney is converted into a granulated texture, and there appears to be a copious, morbid, interstitial deposit of an opaque white substance. This in its earliest stage produces externally, when the tunic is taken off, only an increase of the natural, fine, mottled appearance given by the healthy structure of the kidney; or under particular circumstances, gives the appearance of fine grains of sand sprinkled more abundantly on some parts than others. On making a longitudinal section, a slight appearance of the same kind is discovered internally, and the kidney is generally rather deficient in its natural firmness. After the disease has continued for some time, the deposited matter becomes more abundant, and is seen in innumerable specks of no definite form, thickly strewed on the surface; and on cutting into the kidneys these specks are found distributed in a more or less regular manner throughout the whole cortical substance, no longer presenting a doubtful appearance, but most manifest to the eye without any preparation; and other cases less advanced requiring maceration in simple spring water for a few days to render them more obvious. When this disease has gone on for a considerable time, the granulated texture begins to show itself externally, in frequent, slight, uneven projections on the surface of the kidney; so that the morbid state is readily perceived even before the tunic is removed. The kidney is generally rather larger than natural; sometimes it is increased very much, but at other times it is little above the natural dimensions.

The *third* variety, the kidney is quite rough and scabrous externally to the touch, and rises in numerous projections, not much exceeding a pin's head, yellow, red, and purplish. The form of the kidney is often inclined to be lobulated, the feel is hard, and on making an incision the texture is found approaching to semi-cartilaginous firmness, giving great resistance to the knife. The tubular portions are observed to be drawn near to the surface of the kidney: it appears in short like a contraction of every part of the organ, with less interstitial deposit than in the last variety.

Five plates of diseased kidneys are given, representing the varieties above described.

Besides these three forms, passing almost into each other, and usually attended with decidedly coagulable urine, Dr. B. says that there are two other deranged conditions of the kidneys in which coagulation is sometimes observable, but in a very subordinate degree, and often though observable one day is quite lost on another. One of these morbid states consists in a preternatural softness of the organ; the other in the blocking up of the tubercular structure by small portions of a white deposit, bearing the appearance of small concretions. In the former a corresponding loss of firmness has been observed in the structure of the liver, and the spleen and the parietes of the heart, the action of which organ had been observed during life to be deficient in force. In the other cases, besides the obstructed state of the uriniferous tubes, the whole structure of the kidney has been somewhat deranged, the cortical portion firmer than natural, and the tubular part has lost the regular convergency of the vessels, so that they have assumed a waved direction.

The object of Dr. B. in the foregoing statements, is to establish the fact, that certain dropsical affections depend more on the derangement of the kidneys themselves, than has been generally supposed; and that the albuminous nature of the urine frequently points out the particular cases, in which these organs are the seat of disease.

Dr. B. does not offer any thing satisfactory in relation to the treatment of these diseases of the kidneys; he doubts whether it be possible, after a decided organic change has taken place in this organ to effect a cure, or even to give any great relief, but where the mischief is less rooted, much may be done. In the early stages, before organic changes have taken place, two indications are to be fulfilled.—1st. To restore the healthy action of the kidney. 2d. To guard against dangerous secondary consequences, consisting in inflammatory affections, more particularly of the serous, sometimes of the mucous membranes, and in the effusion of blood or serum into the brain. These may destroy the patient at any period of the disease. The treatment therefore must have reference to these impending dangers, and hence in the early stages it will generally be indispensably necessary to have recourse to active depletion, even as a preventive measure; but it is still more necessary, at every stage of the disease, to combat the first symptoms of inflammation, or of cerebral congestion by the free abstraction of blood. A state of great congestion or process of slow inflammation exists in various internal organs, and particularly the kidneys, which produces subsequently their disorganization, bleeding is a most important remedy to restore the healthy condition of these organs.

Purgatives Dr. B. says generally act well, (the elaterium appears to be a favourite with him;) all the saline laxatives which unite a certain degree of diuretic power, are decidedly useful, of these he considers the supertartrate of potash as the most efficacious, and the best mode of exhibiting it when the stomach will admit, is by directing the patient to take a large draught of a mixture containing more of the salt than the water will dissolve, the first thing in the morning: in some cases he trusts entirely to this remedy. "When the stomach will not bear this mode of administering purgatives, the combination of jalap, supertartrate of potash, and a little ginger, repeated from time to time, answers well, or even frequent doses of castor oil have been very useful."

The diuretic remedy most frequently used by Dr. B. is the squill in its different forms: "but it has always acted best when given in combination with hyoscyamus, or when a grain of opium has been prescribed once or twice a day." Digitalis is in some instances cautiously administered.

Dr. B. considers the propriety of employing mercury as one of the most important questions in the treatment of this class of affections. "It is," says he, "consistent with the most successful treatment of many forms of inflammatory disease, that we should have recourse to the valuable combination of calomel and opium; and it is consistent with what is generally deemed good practice, that by the cautious use of mercury we should endeavour to produce more healthy action, and to promote absorption when there is reason to believe that disease has left any chronic morbid action tending to produce unhealthy deposit in glandular structures. Still, however, the cases which have proved most successful in my own practice, have generally been those in which I have rigidly abstained from the use of mercury. In some cases I have seen the good effects of other remedies entirely interrupted by the mercurial action, and I have likewise seen several instances in which the cure, when mercurials have formed part of the plan, has been protracted to a great length; and a great many in which the full action of mercury has not prevented the regular progress of the disease, and its fatal termination. Yet I have undoubtedly seen well-marked cases of this disease with decidedly coagulable urine, when taken early, in which the free use of mercury to complete ptyalism has not prevented the patients from deriving great, perhaps even perfect relief, from the remedies with which it was combined—these remedies having been bleeding, purging, and diuretics. Independently of the very great doubt which exists as to the advantage to be derived from mercury, there is one circumstance which most materially limits our power of employing it, and that is the violence and rapidity with which the ptyalism often comes on, and the great difficulty which is frequently experienced in restraining its effects· for when the cellular membrane is in the peculiar state of anasarca, induced by this disease, the gums and cheeks are not capable of supporting the process of ulceration, and often pass into a state of gangrene."

The cases and observations on the diseased conditions of the kidney in dropsy are followed by observations on the chemical properties of the urine in these cases, by Dr. Bostock. We cannot conclude our notice of this portion of the work without remarking that we have been led to believe from an attentive perusal of the cases, that if the patients had been treated by depletion more actively and perseveringly employed, and their kidneys less goaded to increased action by elaterium and the stimulating diuretics, that the morbid state of these organs which Dr. B. has described would have less frequently been found.

The next seven cases, (twenty-five to thirty-one, inclusive,) are given to illustrate some of the morbid appearances observable after death when dropsical effusion has been connected with disease of the liver. The morbid states of the liver found in these cases, were a morbid deposit around or in the secreting portion of that organ, which, without interfering very much with its natural consistence, rendered its surface rough, and its whole texture deranged and granular. A change of structure both in the secreting part and the connecting cellular tissue, so that the whole viscus was brought to an unusual state of firmness—the assini enlarged, and the parenchymatous substance thickened, and brought to a state of semi-cartilaginous hardness: when this state advances further, the cellular tissue forms bands in various directions, not unlike a scirrhous degeneration, either in appearance or consistence. In one case in which this state of the liver existed in a much earlier stage, a total change had taken place in its glandular appearance, so that when cut into, it bore more the appearance of a muscular body cut transversely to the direction of its fibres. In one case there were none of those cartilaginous bands of hardened cellular tissue, but the whole organ was changed into globular concretions, harder and more tough than in the natural condition, easily picked out of the cavities in which they seemed imbedded, and sliding pretty readily over each other, so as to render the whole pliable, though tough. Two plates, containing six figures, are devoted to representations of the morbid conditions of the liver above described. These alterations from a healthy state Dr. B. thinks, "produce very general obstruction to the circulation through the branches of the vena portæ, and become in this way the immediate cause of dropsical effusion, independently of any morbid condition which may result to the blood, by its not giving off those substances from which it is purified, while the process of secreting bile is carried to its full extent."

Cases thirty-six to thirty-nine inclusive, illustrate some of the appearances observable where disease connected with the viscera of the thorax has been followed by dropsical effusion. The morbid appearances observed in the cases in the thorax, were disease of the semilunar valves, obstruction of the aorta by a bony mass, ossification of the mitral valve, consolidation of the lung, adhesion of the pericardium to the heart, and disease of the internal membrane of the heart, &c.

Cases forty to fifty, inclusive, illustrate some of the varieties which take place in the results of inflammation attacking different textures of the lungs. Five of these are cases of inflammation of the mucous membrane of the lungs, (bronchitis;) and eight of inflammation of the substance of the lung, two terminating in suppuration, and the remainder in gangrene.

Two plates representing diseased lung are given, one exhibiting gangrene of that organ, the other abscess.

Cases fifty-three to sixty-seven, are illustrative of some of the morbid appearances discovered in phthisis pulmonalis. These are chiefly disorganization of the lungs, ulceration of the larynx, obstruction of the absorbent glands, more particularly those of the bronchial passages, and of the mesentery, and irritation or ulceration of the mucous membrane of the intestines. Four plates are appropriated to representations of these morbid derangements, two contain delineations of the morbid states of the lungs, and the other two, of morbid derangements found in the intestines.

Two cases, sixty-eight and sixty-nine, are given to show the influence of ipecacuanha, and the milder preparations of mercury in dysentery, one of these cases we have transfered to our periscope.

The next nine cases, (cases seventy to seventy-nine inclusive,) are offered to illustrate the morbid appearances which occasionally take place in the intestines during the progress of fever; and the succeeding eleven cases, which conclude the volume, are illustrative of the treatment to be employed when the mucous membrane of the intestines, is diseased, in fever.

Whatever may be the primary nature of the febrile attack, Dr. B. thinks, there can be no doubt, that early in the disease, "the intestinal canal is irritated, and that this irritation keeps up all the bad symptoms, becomes the chief object to which the practitioner should turn his attention, and is not unfrequently at last the immediate cause of death."

When patients are admitted into the hospital, which is seldom within the first week after the attack, Dr. B. says that the stomach and intestinal canal have become greatly deranged, tenderness is experienced at the pit of the stomach, and there are discharged daily five or six watery dejections, which present an appearance similar to that which would be produced by throwing a powdery matter, of the colour of ochre, into turbid water, and the powder settled to the bottom.

To correct these discharges, which depend on an inflammatory state of the bowels, he has found the combination of the hydrargyrum cum creta, the ipecacuanha, and the compound chalk power in different proportions the most applicable remedy, and in many cases he scarcely used any other combination throughout the disease. Under this simple treatment, with the mildest nourishment, the stools gradually change their character, the febrile symptoms regularly retire; and a state of complete convalescence succeeds to the most threatening symptoms.

When the tenderness of the abdomen is considerable, leeches, or, if the sensibility of the part does not absolutely prohibit the use of cupping-glasses, the abstraction of ten or twelve ounces of blood, in that way, sometimes affords remarkable relief, more particularly if succeeded by the application of fomentations. "The most alarming symptom," says Dr. B. "is the irritable state of the stomach accompanied by frequent vomiting, when a quantity of green fluid is usually thrown up either spontaneously or whenever the attempt is made to administer nourishment or medicine. In this case it becomes absolutely necessary to allay the irritation of the stomach; as not only are we prevented from administering the necessary remedies and support, but the patient is completely worn out by the continuance of the painful and exhausting efforts. The task which we are here called upon to perform is often of the greatest difficulty: leeches and cupping at the pit of the stomach sometimes gives very marked relief, even when the powers of the system appear much diminished; and sometimes a mustard poultice has proved beneficial, or a blister after the leeches have ceased to bleed. We may likewise have recourse to draughts, with the subcarbonate of magnesia and a few drops of the vinum opii, or a simple effervescing saline draught. Opium in the solid form, with or without calomel, occasionally assists much in allaying the sickness; but often, when every thing has failed, soda water with a small quantity, not exceeding a tea-spoonful, of brandy, repeated at long intervals, has remained on the stomach, and enabled it to receive and retain other things after various means have failed."

The symptoms of cerebral affection are to be relieved by cold applications, if there be no great deficiency in the general heat of the body, the hair being first removed, and by leeches or cupping where the symptoms are more urgent.

From examining those who have died at the hospital, Dr. B. does not hesitate to say "that the mucous membrane lining the ilium, the cæcum, and the commencement of the colon, has been the chief source of that excessive irritation which has been so prominent with regard to the bowels, and that the upper part of the duodenum has probably been the source of the urgent gastric symptoms; and occasionally the whole mucous membrane of the small intestines has been vascular and irritated. How far all this mischief may be referred to a morbid action of the liver, as affording a vitiated, a redundant, or an insufficient supply of bile, I will not take upon me to say. but the liver has not presented any marked evidence of irritation · it has occasionally been rather pallid, and the bile in the gall-bladder more thin and watery than in perfect health, but where this has been observed, it has fairly been a matter of doubt whether we ought to consider it the result or the cause of the intestinal irritation."

In fevers accompanied by inflammation of the mucous membrane of the intestine, the bowels are occasionally relaxed from the beginning, but more frequently the contrary is the case, and then Dr. B. considers it to be of the highest importance to remove any accumulations which have taken place, and prevent them in future, and for this purpose he recommends calomel, followed by castor oil, or combined with rhubarb, and their repetition directed according to the nature and extent of the evacuations

"As long," says he, "as the dejections are feculent and not too watery, and as long as they pass without pain, we shall never be doing harm by our purgatives. On the contrary, the moment that any thing like watery diarrhœa comes on, either after purging has produced irritation, or when, from want of proper purging, the contents of the bowels have given rise to it, we must always bear in mind that the mucous membrane is getting into the state referred to in the preceding observations, after which every thing like brisk or irritating purging must be avoided. The moment the yellow ochry diarrhœa has taken place, I think there can be little doubt that the intestines are either actually ulcerated or are on the very point of ulceration; and then in general the irritation of the canal is of itself sufficient to prevent accumulations; and it must be our great and constant object to improve the secretion of the intestines and the connected viscera rather than to purge actively. We must not, however, for a moment entertain a project of putting a stop to the diarrhœa: we must watch it carefully and constantly; and if we have any reason to doubt the sufficiency of the discharge, we must act gently by means of castor oil guarded by a few drops of laudanum, or by simple emollient glysters. But in general this, which I conceive to be the period when ulceration is commencing, is the time, when the combination of the mildest mercurials, the hydrargyrum cum creta, and the compound chalk powder, with or without ipecacuanha, is administered with the greatest benefit; and it is advantageously continued till the cure is complete. In the following cases it will be found that I have often trusted the progress of the fever so much to the regulation of the bowels by these simple means, that I have appeared to forget the primary disease in my attention to this particular train of symptoms; and in truth I have almost done so, because I have very frequently found the cure of the disease keep exact pace with the improvement taking place in the alimentary canal. This combination generally of itself acts as a purgative; and if it does not, a simple gruel injection seldom fails to produce sufficient effect. During the whole period, however, that our attention is turned to the secretion of the mucous membrane, we are not to forget the possibility of vascular fulness, or even of inflammation being set up in some part of the abdomen, and to overcome this, when we have decided reason to believe in its existence, we are to employ external fomentations, leeches, and even cupping: but these remedies, admirably suited as they often are to this form of disease, must be used with caution; for I am persuaded that I have seen mischief result from an inclination to believe that every painful affection of the abdomen, more particularly if increased by pressure, in the advanced stages of fever, must necessarily be inflammation, and call for abstraction of blood."

Dr. B. has found antimonials do harm where there was any decided tendency to irritation in the bowels, and he usually substitutes the ipecacuanha wine, as a diaphoretic; but he thinks that "in many cases, harm rather than good is done by the use of saline remedies and diaphoretics in any form, as they irritate the bowels without materially aiding in that more equable distribution of the blood which is the professed object of their employment."

Tonic remedies Dr. B. considers as of essential importance; and that even while evidence exists of much local mischief in the bowels, it will sometimes be necessary both to support and to stimulate the system: "looking indeed," says Dr. B. "to the character of the ulcerations, the deep sloughs which they often form, and the dark red inflammation which surrounds them, there would be reason to suppose that such remedies might be useful. And occasionally the decided remittent form which the fever has assumed, has completely removed every scruple, and led to the free exhibition of the sulphate of quinine with admirable effect. At the same time there is more danger to be feared from the too early use of stimulants, as long as the system is still able, without their aid, to support the febrile prostration, than there is risk in abstaining from stimulants a little beyond the period when they might possibly begin to act well. In a general way the system seems capable of supporting itself for a few days under that great degree of prostration which is connected with advanced ulceration of the bowels; and although we cannot determine the exact state of the ulcers in these cases, yet we find that the action of stimulant and tonic remedies is often more certainly beneficial after that state of prostration has existed for some time, than when such remedies are administered with a view of obviating or anticipating the first symptoms of collapse; for when administered too soon, they frequently kindle the inflammatory action with redoubled violence, and then it is that the most appalling combination of debility and nervous excitement is seen for one or two days to precede death."

Dr. B. concludes his observations on fever, with the remark that though it is perhaps not within the power of human skill always to arrest those awful scenes with which fever frequently terminates, *there is undoubtedly no more certain way of interposing to prevent them than by making ourselves acquainted with the nature of the mischief with which we have to contend.*

Three plates are given of the morbid derangements observed in the intestines in fevers.

As Dr. Bright's volume is so costly as to prevent its circulation in this country, and as its contents are highly interesting, we have been induced to extend our notice beyond the usual limits, and have placed in our periscope, some of the most interesting cases.

---

2. *Anatomisch Chirurgische Abbildungen nebst Beschreibung der Chirurgischen Operationen, nach der Methoden von* RUST, GRÆFE *und* KLUGE. Von LUDWIG JOSEPH VON BIERKOWSKI, &c &c. Berlin, 1826. 1 vol. 8vo. pp. 576. (Second vol. not yet published.) With forty Lithographic plates in folio.

Bierkowski's anatomico-chirurgical illustrations and descriptions of surgical operations, according to the methods of Rust, Græfe, and Kluge, three highly distinguished German professors, is a valuable and beautiful work, the whole of which we hope is by this time published. The plates are of the size of life, and the relative positions of the parts to be operated on, as well as the figure and extent of each external incision, is marked in such a manner as to afford the most satisfactory memoranda to the student or practitioner. Although this work is principally intended to describe the operations of the professors above-named, yet it is not exclusively confined to stating their methods, as those of Lisfranc, Cooper, Beer, Gauttani, &c. are occasionally given. Each operation is described according to the different stages or "acts" to be observed by the surgeon. The general style of this volume is clear, concise, and explicit, characters peculiarly distinctive of modern German didactic works

Three editions of it have been printed. The first, and best, is printed on the finest Swiss vellum paper, with the muscles and vessels neatly illuminated: the muscles flesh-coloured; the arteries of a vermilion tint; and the veins blue. The second edition is printed upon fine cap paper, having only the vessels coloured, as in the first edition; while the third is printed upon ordinary, (though not course,) paper, and the plates are not coloured. The price is not stated.

In a mere notice like the present, we cannot attempt to offer a satisfactory statement of all the peculiarities of Rust, Græfe, and Kluge's modes of operating. But the following observations of Dr. Bierkoffski, made in a note to the description of Cooper's operation upon the aorta, may prove interesting, and we translate them especially on account of his experiments.

"The course of the blood to the inferior extremities, (when the aorta is tied,) is readily understood, if we recollect the anastomoses between the internal mammary and epigastric, the lower lumbar and circumflexa ilii, and the hemorrhoidal and pelvic arteries. These small vessels, indeed, bear no proportion to the inch-wide aorta,* and consequently when the latter is tied up, the inferior extremities are very sparingly supplied with blood, and therefore are debilitated; the pulsation moreover cannot be discovered while the force of the pulse is expended upon the channels afforded by the innumerable delicate anastomoses through which the circulation is then kept up. As time alone gradually restores the strength of the pulse, the limb will at length be gradually nourished to a due degree and recover its former strength. The small vessels before mentioned can, in time, become somewhat enlarged, but much time is requisite that the vessels above the ligature should gradually form a set of spirally arranged new vessels around about the aorta, and unite with the proper trunk below the ligature. Having, however, had no opportunity of observing this condition, we shall not hazard an opinion. We can say but little upon the subject, as we have but one instance in which the operation has been performed on a human being, and Cooper's patient died within forty hours after the ligature was applied: (might there not have been some complication in this case?) If conclusions drawn from inferior animals were applicable to man, we might say that when there is no other resource, the ligature may be advantageously applied to the aorta.

"With a view to satisfy ourselves of the restoration of the circulation to the inferior extremities, by the formation of new vessels, the following experiments were made.

"On the 20th of January, a ligature was tied around the descending aorta, (of a cat of two years old,) at its posterior extremity. The animal was very restless during the operation, three loops of intestine protruded through the single wound, which was along the linea alba an inch and a half in length, and it was very difficult to apply the ligature properly. The protruded intestine was replaced, the ligature confined at the posterior angle of the wound, and the wound was closed by the bloody suture.

"On the 21st of January we tied the aorta of another cat of two years and a half old, with more care and precaution, at the same point as in the preceding. This cat was so secured that during the operation she could make no movement, and to prevent with certainty the surrounding of any portion of intestine by the ligature, we used an instrument made of wire, in order to pass it without obstruction. With the aid of this instrument the ligature was very easily applied, and we were very careful to observe that no intestine was included, and to allow none of the bowels to protrude through the wound. The wound was drawn together with stitches.

---

* "Diese kleine Gefass stehen zwar in keinem Verhaeltniss zu der fingerdickenen aorta."

"The cat which was first operated on, after the application of the ligature, walked with difficulty; in the evening she lapped a little milk. On the succeeding day, January 21st, she appeared very weak, lay constantly extended upon her belly, and slept with her head upon her fore-feet. When roused, she stood up, but could not walk more than a few steps, mewed several times, looked dejected, resumed her former position and again slept. Some milk was offered, which she merely tasted, and refused to take more. She died on the 25th January, about midnight.

"On dissection it was found that a considerable loop of intestine was included with the aorta in the ligature. Nearly all the bowels were inflamed, in part gangrened, and the aorta was somewhat so. The ligature still remained moderately tight. It is evident, the tying in of the bowel was the immediate cause of death.

"The cat operated on the 21st Jan. moved shortly after the operation, licked the wound frequently, slept very well, and woke suddenly, occasionally mewing; at midnight she took some milk, licked the wound, and slept again. Early on the 22d Jan. we found her sitting on a chair in the room; she seemed very tame, and mewed as if hungry, leapt from the chair, and ate some meat. On the 24th the wound was healed with the exception of the part whence the ligature of the aorta depended. On the 26th this ligature came away; on the 28th the wound was entirely healed, and the animal was as well as ever she had been."

It has always appeared to us, that Sir A. Cooper's operation was deferred until too late a period; and we cannot help believing that it was rendered still less likely to succeed by the manner in which it was performed, working his way through the folds of the peritoneum with the finger nails, and then leaving a catgut ligature of considerable size extending from the aorta to the external wound. This must have added greatly to the irritation, as the peristaltic motion of the bowels must have produced no slight friction against the cord.

J. D. G.

---

3. *Histoire Anatomique des Inflammations.* Par A. N. Gendrin, M. D. Secrétaire-Général du Cercle Médical de Paris, &c. &c. Paris, 1826. 2 vols. 8vo pp. 1364.

After two thousand years of wanderings in the wilderness of hypotheses and conjectures, medicine has at last attained the road leading out of the labyrinth in which it has so long been entangled. The imperishable honour of being the first to explore this path, is due to Bichat. It is true that its direction was indicated by Bordeu and Pinel, but it was Bichat who first advanced any distance, and who proved it to be the road by which medicine was to arrive at its highest possible state of perfection. His discover es mark an era as important in medicine, as do those of Lavoisier in chemistry, or Newton, in natural philosophy.

Formerly, anatomy taught the position, size, and configuration of the organs; a knowledge no doubt useful, particularly to the surgeon, but of little service to the physician in his investigations into the nature of diseases, and the best means of cure: physiology was a distinct science, and pathology could scarcely be said to exist. Bichat, by means of the scalpel, and where that failed him, with the aid of chemical reagents, ascertained the elementary parts or textures of which the body was composed, pointed out their properties, combinations, and appearances in health, and showed that each tissue, in the structure of whatever organ it might occur, presented in disease identical phenomena. He thus created a new anatomy, a new physiology, and a new pathology, one founded on the other; a physiology based on anatomy, a pathology erected on physiology, each forming stories of the same edifice, and together forming a durable and splendid superstructure. Unfortunately for science, Bichat's career was cut short by an early death, but the brilliant discoveries at which he arrived by his mode of investigation, have induced many disciples to follow zealously the same path, and medicine is daily advancing by their labours to a state of perfection equal to that of the other sciences.

Among the followers of this great master, Dr. Gendrin will, we think, stand conspicuous. Bichat ascertained and described most of the healthy and some of the pathological characters of these tissues, but he left by far the greater portion of the extensive and rich field of pathology to the exploration of others.

Dr. Gendrin has engaged in this investigation, and in the work the title of which stands at the head of this article, he has endeavoured to present us with as full and accurate an account of the changes produced in the tissues by disease, as Bichat has of the tissues in a healthy condition. His work is divided into three books. The first book consists of thirteen chapters, the first twelve of which are devoted to a brief description of the characters of each of the tissues in health, followed by a full account of the effects produced in each by the different forms of inflammation to which they are subject, as acute, chronic, phagedenic, and gangrenous; the last chapter comprises the history of adhesive inflammation in each of the tissues, with an account of the anatomical characters of adhesive inflammation in general.

The second book treats of the alterations which follow inflammation, and consists of two parts. The first part is devoted to an account of the alterations produced in the fluids by disease, and is divided into three chapters. In the first, the author describes the blood in its healthy state, and the alterations produced in it by inflammation; in the second, the fluid products of inflamed tissues; and in the last, the alterations in the fluids produced by changes in the organs which secrete them. The second part is devoted to a description of the alterations of texture which follow inflammation, and is likewise divided into three chapters. The first relates to immediate adhesion succeeding inflammation; the second to the membranes which form on the parieties of accidental cavities in the substance of the organs, as cysts, and the lining of fistulous canals, the third to the preternatural laminæ and fibrilla which form on the surface of inflamed membranes.

In the third and last book, the author treats of the comparative anatomy of the alterations of the tissues, both those produced by inflammation, and those which are not, and he divides this book also into three chapters. In the first he describes the idiopathic and inflammatory softenings of the bones, of the mucous and villous, of the nervous and of the muscular tissues: in the second, the comparative anatomy of tuberculous and inflamed tissues: in the third, the comparative anatomy of the scirrhous and carcinomatous and inflamed tissues —and concludes the work with a summary of the anatomical history, including the theory, general principles, and rational treatment of phlegmasias.

It will be perceived from the above sketch; that the plan is full and comprehensive, embracing, indeed, the whole range of pathology, a subject hitherto little investigated, and one, the investigation of which demands persevering and laborious research, talents for observation, and a mind free from prejudice and anxious only to arrive at the truth. M. G. appears to have brought to the task all these requisites, and to have had the advantage of numerous opportunities for observation, which have enabled him to illustrate every part of his work with interesting cases. We should be much pleased to see this work translated into our language; it would be a most valuable accession to the library of the student of medicine.

---

4. *Traité de l'auscultation Mediate et des Maladies des Poumons et du Coeur.* Par R. T. H. Laennec, Medécin de S. A. R. Madame Duchesse De Berry, Lecteur, et Professeur Royal de Medecine au college de France, Professeur de Clinique à la Faculté de Medecine de Paris, &c. &c. &c. Seconde Edition entierement refondue. Toms. 2. Paris, 1826, pp. 1518.

A Treatise on the Diseases of the Chest and on Mediate Auscultation. By R. T. H. Laennec, M. D. &c. &c. Second edition, greatly enlarged: translated from the French, with notes and a sketch of the author's life, by John Forbes, M. D. Member of the Royal College of Physicians, and Senior Physician to the Chichester Infirmary. With plates. London 1827, pp. 722.

The profession will be pleased to learn, that a new edition of the classical work of Laennec, has been published, enlarged and corrected from the observations which the author has made during the seven years that have elapsed since the publication of his first edition. During this period, he has assiduously employed himself in collecting new proofs of the correctness of his principles and of the accuracy and precision of his method of examination, and in extending his researches on several subjects, which he had formerly not been able satisfactorily to elucidate. In these investigations he has been eminently successful and has been enabled to render his work complete as a pathological and practical treatise on the diseases of the organs of respiration and circulation.

The additions to the present work are so numerous, and the alterations so considerable, that it ought rather to be considered as a new work than a new edition of the former, though all the contents of the first publication are comprised in this. The arrangement of the present edition is much more natural and physiological than that adopted in the former one. The chapters on pituitous catarrh, on dry catarrh, on dilatation of the bronchia, on emphysema of the lung, on pervpneumony and gangrene of the lungs, on pulmonary tubercles, on diseases of the heart, &c. have been much enlarged; and on several subjects new chapters have been added, as on symptomatic catarrh, suffocative catarrh, croup, bronchial hæmorrhage, hypertrophy and atrophy of the lung; &c.

The translation by Dr. Forbes appears to be faithfully executed, and is enriched with notes by the translator. The original is written in rather a diffuse style; in the translation the cases are considerably abridged, and the rest of the work much condensed. We hope an edition of this work will speedily be published in this country, that American practitioners may possess themselves with a work, which is, without question, the most valuable ever written on the pathology and diagnosis of the diseases of the thorax, and, indeed, may be considered as almost perfect in its kind.

5. *Grundriss der Chirurgischen operationen, von* D. GOTTLOB BERNHARD SCHREGER, KŒNIGL, BAIERSCHEM HOFRATHE, &c. &c. Nurnberg, 1826, 2 vol. 8vo. pp. 1000, third edition, revised and enlarged.

This is the most complete and satisfactory view of the elements of operative surgery we have yet seen; and we are not surprised that it should have been several times enlarged and reprinted within a few years. The operations of surgery are not merely described, but the history of the rise and progressive improvement of each operation is given; the instruments used in performing them are referred to their respective inventors and improvers, and the different modes of operating employed by distinguished and experienced surgeons of all countries, are succinctly and perspicuously stated. The various operations are accompanied by ample references to valuable treatises and papers on the subject, so that the reader has always within view a catalogue of the best books to be consulted, when he desires to extend his acquaintance with the operation.

No one can examine German scientific works, without being pleased to observe the liberality they display towards those devoted to similar pursuits in other countries than their own, as well as the full credit they give to the authors of improvements, however obscure the individual may be. Such conduct is highly commendable, and the imitation of it may be urged upon the cultivators of medicine generally. Dr. Schreger's work is worthy of being well translated, and unless we are much mistaken, it would be considered an acceptable addition to the libraries of American surgeons. J. D. G.

6. *Manuale Clinico di Obstretricia di* FRANCESCO ASDRUBALI, Tomi 2e 8vo. Roma, 1826, pp. 835.

The author of the above cited work on the obstetric art, is one of the most celebrated and erudite practitioners in Italy, he is at present professor of midwifery in the college of Sapienza, and has already published much on this branch of medicine. His first work, which appeared in 1795, was the Elements of Obstetrics: this treatise was received with great eagerness by the profession throughout Italy. This was succeeded in 1812 by a very voluminous work on the theory and practice of midwifery, and afterwards by the present, which appears to be an abridgment of the practical portion of the larger work.

As in most treatises on medicine, published on the continent, and particularly in Italy, there is a great portion of it occupied with references to the earliest known authorities, which, although useful in a history of the science, seldom are of a sufficiently practical nature to be relied on in the present advanced state of the healing art. Dr. Asdrubali appears perfectly acquainted with the writings of cotemporary authors, and refers constantly to them, particularly to those of M. de Lachapelle and Baudelocque, his work also contains some excellent observations on the different points of legal medicine connected with obstetrics. As this is one of the latest works on midwifery which has issued from the Italian schools, we will give a short analysis of its contents, judging that our readers would feel anxious to learn what progress this important branch has made in that country.

The author begins by treating of parturition in general, and of the anatomy of the pelvis, and organs of generation, and like Barclay and Chaupier, wishes to establish a nomenclature in anatomy, similar to that adopted in chemistry, thus he terms the ossa innominata, the bi-ileo, ischio-peltinee, ventaglio-forme. He is a strenuous supporter of the general existence of the hymen, although he very properly admits that its absence is not a proof of the loss of virginity; in treating of the last subject he divides it into perfect, mixed and imperfect.

Dr. Asdrubali's division of pregnancies differs somewhat from those adopted in this country, he terms them:—1. Fortunate pregnancies when the womb contains a living fœtus. 2. Unfortunate when it is extra-uterine, or when the fœtus is dead. 3. False when there is a mole or hydatids. 4. Mixed when there is a living fœtus accompanied by a mole, &c.

After describing the natural positions of the head of the fœtus during labour, he discusses at some length, the posture that the woman is to maintain during delivery; and finally decides, that the best is a sofa, on which a hard mattrass is placed, which should be inclined towards the feet of the patient; he recommends that an accoucheur should if possible always have three assistants.

Our author's observations on the treatment of the placenta, are founded on just principles, and deserve attention. He details many cases in which irreparable injury has ensued from the haste and violence of the accoucheur in bringing away the after-birth.

The next chapters are devoted to natural and preternatural, (*morbose*,) labours, these, from the cursory glance we have made of them, appear to contain little that is new and interesting; he then proceeds to the consideration of instruments, and recommends strongly the use of the lever, not the instrument generally known in this country under that name, but a blunt instrument to support or change the position of different parts of the body of the child; he also makes much use of the fillet.

In the succeeding chapters are noticed the Cæsarian operation and division of the symphysis pubis, of which, he prefers the former; observing, that viewed in every light, the latter is much more dangerous, and far from being as certain as the Cæsarian section.

The last chapters are devoted to the consideration of the accidents that take place during labour, as laceration of the womb, or perineum, uterine hæmorrhage, &c. R. E. G.

7. *Sulla Ottalmia Pustolar-Contagiosa.* Del Chirurgo GAETANO BUZZI. Prato. 1825. 8vo. pp. 100,

The study of ophthalmology has of late years attracted much attention from the medical profession, and consequently has advanced rapidly in certainty and usefulness. That this is attributable to our increased knowledge of the different tissues cannot be denied, and must be evident to the most cursory observer. Pathology, once a complete chaos of unconnected facts, is now becoming a science beautiful in its connexions, and certain in its results.

We have long been indebted to Italy for useful information on diseases of the eye, the labours of Scarpa alone would have entitled her to claim a high rank among the benefactors of mankind, he gave an impulse to the successful investigation of the structure and diseases of the eye, which has been unremittingly followed by his contrymen, among whom may be mentioned Assalini, Vasani, and the author of the treatise under consideration.

This work has been published two years, but we believe has never been noticed in our journals—the author gives his practical knowledge and the fruits of his experience in a simple and brief form, without loading his work with the speculations of others further than is incidentally required, and displays a perspicuity of observation that will make his few pages valuable to the medical world.

It contains a detail of many experiments instituted by him to ascertain the fact of the contagious nature, and the best means of cure for this dangerous form of ophthalmia. This subject is of such practical importance, and has so often been the topic of violent disputes, that we have thought it would be interesting to our readers to give a short analysis of the work.

After observing that every author who has written on the disease has given it a new appellation, he falls into the same error, and proposes that of pustular contagious ophthalmia, thus adding to the confusion already existing, from writers describing the various forms of the disease under different names.

His reasons are as follows:—"Having observed that this form of ophthalmia is always contagious, and that from its very commencement, or rather from the moment it is perceptible, there are always to be discerned on the conjunctiva covering the globe of the eye, pustules, abrasions or ulcers, I determined to bestow on it a name which would at once define it and give its principal characteristics."

Dr. Buzzi denies positively that the first appearance of this disease in Europe was immediately succeeding the arrival of the troops from Egypt in 1798, and says that "the contagious pustular ophthalmia is peculiar to all countries, and exists at all times, that it is certainly more common in Egypt, as its predisposing causes are more frequent and permanent in their action in that country." He has seen it arise in Florence in an individual who communicated it to his whole family, and what is worthy of observation, that the first attacked were the youngest children from whom it was successive in its progress to the adults. He says that it occurs most frequently in children of scrofulous habits, and as this latter disease is so prevalent in Florence, it accounts for the number of blind, who are to be seen in that city.

Dr. B. considers that improper and scanty food, impure air, uncleanliness.

&c. are all predisposing causes of ophthalmia, and that some individuals are much more susceptible of its attacks than others; he details an extraordinary case of the supposed contagion of this disease from Vasani. "In 1817, a hospital was established in Ancona for the reception of ophthalmic patients, the poultices, &c. used by the patients were thrown from a window and fed on by fowls, and strange to relate, these birds were all attacked with purulent ophthalmia in so violent a degree as to become blind"—the author afterwards details some experiments he made, which certainly tend to show that the purulent matter from a diseased eye is capable of exciting inflammation, and a purulent discharge when applied to a sound eye; he thinks these are conclusive as to the fact of its contagious nature, we have no doubt of the fact that the purulent matter from a diseased and ulcerated eye is capable of inducing a similar state of things when applied to a sound eye, but we are also of opinion that any acrimonious discharge from a mucous membrane when applied to the eye would induce a purulent ophthalmia, it is owing to the overlooking of this circumstance that the science has been loaded with so many divisions of purulent ophthalmia, as Egyptian ophthalmia, gonorrhœa, &c.

We shall not follow our author in his description of the disease, and the progress of the symptoms: as these, although faithfully and accurately given, are familiar to every one; but proceed to his mode of cure; this he details at some length, but the whole may be given in a few words. To diminish the inflammation by local depletion and topical applications, to keep the eye clean and as free as possible from an accumulation of the purulent discharge, to create a counter-irritation by means of blisters behind the ears, to pay strict attention to the state of the alimentary canal, and to maintain a strict diet. In the chronic state, and when ulcers exist, he advises the use of a solution of corrosive sublimate, 1 gr. to ℥v. of water, he has also found benefit in these cases from a wash of lime water, in which two grains of sal. ammoniac have been added to each ounce.

R. E. G.

8. *An Inquiry into the Nature and Treatment of Diabetes, Calculus and other Affections of the Urinary Organs: with Remarks on the Importance of attending to the State of the Urine in Organic Diseases of the Kidney and Bladder; and some Practical Rules for determining the Nature of the Disease from the Sensible and Chemical Properties of that Secretion.* By William Prout, M. D., F. R. S. From the second London edition, revised and much enlarged: with notes and additions by S. Calhoun, M. D. &c. Philadelphia, 1 vol. 8vo. pp. 308.

When we take into consideration the obscure pathology, painful nature, and great intractability of diseases of the urinary system, we are glad to see a second edition of Mr. Prout's valuable treatise upon the subject, with proofs that it still receives his able investigation. In its present form we believe the work embraces more interesting and authentic information relative to these affections than any other we know of, as, in addition to the store furnished by the author, the American editor has added to the volume nearly all the valuable matter upon the subject, to be found dispersed through the writings of others.

That those who have never examined the work, may have some idea of the contents, we shall condense a few remarks from it of a general nature.

Mr. Prout has indicated with great skill and precision, the constituent parts of the blood and urine. When a comparison is instituted between the comparatively simple composition of the former, and the heterogeneous character of the product derived from it, we cannot fail to be struck with surprise at the wonderful powers of elaboration possessed by the kidneys. As Berzelius has previously remarked, *acidification* seems to constitute the chief feature in these operations. Thus, for example, in the healthy process, the sulphur and phosphorus of the blood are converted by the kidneys into sulphuric and phosphoric acids; a new acid, the lithic, is generated, etc: but in certain morbid conditions, this acidifying tendency is carried to excess, giving occasion to the production of the nitric acid, oxalic acid, &c. At other times, however, it is diminished or suspended, and unchanged blood, or albuminous matter; neutral substances, as urea or sugar; or even alkaline substances, as ammonia, lime, and magnesia, are separated in abundance; the phosphorus and sulphur naturally belonging to the blood, passing at the same time through the kidneys and bladder without being acidified.

"It may be remarked in general," says Mr. Prout, "that when acids are formed in excess by the kidneys, the urine is commonly small in quantity and high-coloured, and the disease inflammatory. When neutral or alkaline substances, the urine on the contrary is generally pale-coloured and large in quantity, and the diseases are those of irritation and debility."

The author of the treatise has divided diseases of the urinary organs into three general classes. 1st. *Functional* diseases; comprehending all those affections arising from a deranged operation of the kidneys. 2d. *Mechanical* diseases; including all those arising from the mechanical irritation of solid foreign bodies, as calculi, &c. 3d. *Organic* diseases; or those connected with disorganization of some portion of the urinary organs. These general divisions are subdivided into other heads, so as to embrace each disease common to the urinary system. The closeness with which the author and editor have adhered to practical points is certainly very praiseworthy, and the chemical details of the former, which constitute the basis of most of his inquiries, are exceedingly plain, concise, and intelligible. G. E.

---

9. *Encephali Anatomica Descriptio a Doctore* Lupi, *filio, peracta. Romæ*, 1826, pp. 69.

This unpretending pamphlet contains an accurate view of the improvements made in the investigation of the anatomy of the encephalon, by Gall, Spurzheim, Meckel, Cloquet, Chausier, &c. and was published by Dr. Lupi, the younger, for the use of students, whose books generally contained the anatomy of the encephalon according to the ancient "cheese-slicing" method. If we feel any regret in relation to this description of the brain, it is, that the author did not give it in his own beautiful language; for whether it be owing to the nature of the subject, or to the difficulty of arranging technicalities in the language of ancient Rome, or to any other cause, the Latin of this description sounds peculiarly flat in general, and is in many instances rugged and unpleasant. It is, nevertheless, throughout correct and clearly comprehensible; merits which, on such a subject, might fully compensate for greater defects than mere mediocrity or slight inelegance of style. J. D. G

10. *Replica di* L. Metaxa *all'apologia di alcune postille Scritte da* D. Meli
Roma, 1826, pp. 75.

The melancholy truth that neither learning, talent, nor station always exempt individuals from human frailties and passions, is clearly confirmed by the pamphlet before us: it moreover indicates that the "*genus irritabile*," comprises a greater number of *species* than is commonly referred thereto. The cause of complaint against Signor Meli is that of having published a criticism upon a medico-legal dissertation, written by Professor Flajani, in which, on the supposition of its having been written by Dr. Metaxà, Meli abuses the latter scurrilously and personally.

We have, heretofore, had occasion to pay due homage to the professional learning and intellectual acumen of Professor Metaxà, in his paper on the case of Crespi, who was tried on the charge of having committed a rape upon the person of an immature female.* We have also recently received his *second* memorial on the same subject, in which his claims as an investigator of medico-legal evidence are shown to be of the highest order. With his especial quarrel we have nothing to do, and very little to say, except, that judging by the coarse and scurrile epithets which he quotes as used against him, he has stooped to notice an aggressor altogether unworthy of his attention.

But we may be allowed to call the attention of the profession to the subject of this sort of warfare in general; and to invite those who are desirous of seeing the dignity of the medical character augmented and sustained, to unite in discountenancing similar exhibitions of ignobleness, passion, or egotism It is no doubt true, according to the words of Sallust, adopted by the author of the pamphlet, "nulli mortalium injuriæ suæ *parvæ* videntur," but it is not less true, that few, very few, instances can occur, in which injuries sustained in the business of life by an individual will prove sufficiently *great* to interest the feelings of a whole community. The frequent references to the public to determine whether A has not greatly injured B, or C has not exceedingly misrepresented D, &c. may appear of great importance to the querists themselves, but can have little other influence upon the public besides that of causing the *profession* to be regarded as peculiarly addicted to malevolence and strife, and thence, to diminish the respect entertained towards the whole body.

It is certainly a severe trial to have abuse and misrepresentation published against one, and occasionally from men who are, "ex officio," supposed to be respectable, and not to reply; more especially where we feel confident that we could readily prove that the aggressor is as incompetent to judge, as he is violent and abusive. Nevertheless, the most usual causes of altercation, and reference to the public, are of a nature to call for forbearance and self-respect, rather than an appeal to that "public" which cannot or will not take time to inquire into the true state of the case. Upon your true literary Aspic, the severest infliction is the contempt of entire neglect; no greater suffering can such creatures experience, than that which follows from perceiving that their most concentrated venom is so innoxious, as not even to provoke the motion of a finger for their removal.

---

* Philadelphia Med. and Phys. Journal, vol. ix. p. 427.

As long as men are differently educated and variously endowed by nature and fortune, we must expect differences of opinion and discrepancies of judgment, even from an examination of the same data. These differences, so long as those who exhibit them are influenced by correct and honourable principles, tend to produce inquiry and promote improvement. But the altercations which spring from disingenuous artifice, and are hurried before the public by passionate egotism, are always injurious to the profession. Just, however, is the decision of the public, in almost every instance, that both sides are in the wrong: yet the justice awarded the individuals rarely fails to cause a part of the *odium* to be imputed to the *profession.*

As a remedy for such evils, we would beg leave to propose a greater scientific and social intercourse among the members of our profession, with a view of eliciting truth by courteous interchange of sentiment, and by mutual exertions in the cause of science, to inspire a feeling of noble emulation. Where individuals exhibit that unhappiness of temper which renders them almost universally obnoxious and disagreeable—let them be politely shunned—"put into Coventry"—left to their own society, until they learn to appreciate the privilege of associating with those, who, in the pursuit of fame and fortune, never for an instant forget the rights and feelings of cotemporary aspirants. J. D. G.

QUARTERLY PERISCOPE.

FOREIGN INTELLIGENCE.

ANATOMY.

1. *Structure of the Nerves.*—"With the view of ascertaining whether these organs are canals or not, M. Amussat has attempted to inject them; and laid before the *Académie de Médecine*, at a recent meeting, an anatomical preparation, from which it appeared, that when the nerves are injected with mercury, from the branches towards their origin, the fluid, instead of reaching the substance of the spinal marrow, falls into the cavity of the dura mater; that when a common trunk, or a nerve, near its origin in the spinal marrow, is injected, the mercurial tube being directed along the side of the organs, the mercury does not penetrate the neurilema, so that these two injections, thrown in opposite directions, with regard to the same nerve, prove that there are two investing membranes or neurilemata; and that when nerves are injected, the fluid passes between them—when a bundle of nerves is injected from an origin above their ganglia, on directing the tube towards the spinal marrow, the mercury frequently penetrates a blood-vessel of the fasciculus, which proves beyond a doubt that it is not the nerve itself that is injected in this manner, but an artery."—*Révue Méd. Juin,* 1827.

2. *Spurious Hermaphrodism.*—The following "conformation of the organs of generation, was observed in a male subject who died at the age of sixty-seven. The labia were closely imitated by two longitudinal folds of the skin, at the upper part of which was an imperforate penis, which might have passed for the clitoris. The opening of the urethra was beneath, and at the root of this appendage—below which again was a round opening, terminating in a *cul de sac,* giving something like the aspect of a vagina. There was even a membranous fold across this, perforated in the centre, which might have passed for the hymen. The labia resembled those of an old woman; but there were no substitutes for the nymphæ. The testicles were above the inguinal ring. The possessor of these peculiarities had always passed for a man. The breasts were not developed; he was rather inclined to be lusty; had a scanty beard; was feeble both in body and mind; never manifested any sexual propensities; and, in fact, was considered impotent."—*Journal des Progrès, vol. iii.*

3. *Case of Monstrosity,* by J. Tucker, Esq.—"The fœtus appeared to be full grown; and there being a division throughout the chest and abdomen, the whole contents of both cavities were exposed to view. The display of the thoracic viscera arose from a separation through the median line of the sternum, which extended to the pubes; the edges of the recti muscles were reverted as it were, and faced with a white, tendinous border. But the deviations did not

end here. The right hand exhibited but one finger, and the left foot but one toe. The umbilical chord made its exit on the back, between the scapulæ.

"Immediately on delivery, the child cried lustily, and lived for two hours, during the greater part of which I had the heart in my hand, and witnessed the vena cava returning the blood to its right side, and its reception on the left from the pulmonary vein. The aorta and pulmonary artery were also both distinctly seen, together with their actions.

"As all the abdominal viscera were out of the cavity, by simply turning them aside I could see the descending aorta and the ascending cava."—*Lond. Med. Repos. and Rev. Nov.* 1827.

4. *Structure and Derangements of the Lymphatic System.*—"M. **Amussat** has presented to the Académie Royale some anatomical preparations, exhibiting an injection of the abdominal lymphatics, and a demonstration of the fact, advanced by certain Italian physiologists, that there is a communication between these vessels and the veins: this communication is established between the lymphatic glands and the large trunks, through the medium of certain canals. In these preparations the mercury passed direct from the lymphatics into the cava and the common iliacs.

"The same gentleman also exhibited a morbid preparation, taken from the body of a person who had died of small-pox. In this subject, the attempt to inject the lymphatics had been made in vain; and the obstacle was found to consist in the lymphatics of the abdomen, and even the thoracic duct itself. being loaded with blood. This last-mentioned phenomenon appears to have been observed by others; but it is not indicative of an inflammatory state of the vessels themselves; which, after removing the blood, (absorbed by them in all probability,) exhibited their natural physiological state."—*Journal Gén. Mai,* 1827.

5. *Bilobate Uterus.*—M. **Berard**, Jr. found on examining an insane patient, aged fifty-six years, who died at the hospital, Salpêtrière, the following formation of the genital organs. "The uterus viewed externally was divided by a deep fissure, extending from its superior border to its neck, into two perfectly distinct lobes, although irregularly puckered and deformed by fibrous bodies projecting from its surface. From the external extremity of the superior border of each of these lobes, originated a fallopian tube surmounted by an ovary, and a round ligament. The internal extremity of the same border scarcely existed, being continued imperceptibly into the fissure. On dividing the lobes to observe their cavity, other fibrous bodies were found in their tissue. The cavity of the lobes in which were suspended other very small fibrous bodies, had sufficient capacity, an almost vertical direction, and formed but a slight angle with that of the neck. This like the body of the uterus was divided into two parts, but by a partition only which was continued the whole extent of the vagina, as far as beneath the meatus urinarius, in such a manner that there were two vaginas corresponding to the two neck of the uterus, entirely separated. Great thickness of the vagina especially near the vulva, the partition was formed by a duplicature of the proper membrane of this passage, which could easily be made to move one on the other. Numerous transverse rugæ furrowed the mucous membrane. Two or three fleshy tubercles, the remains of the hymens, existed at the external orifices, which opened into a single, naturally formed vulva."

This woman had had but one infant, born at the full period, which died during birth, after a difficult labour. The existence of this singular conformation was not suspected during life.—*Journal des Progrès, vol iv.*

PHYSIOLOGY.

6. *On Vital Motion, by* M. H. Dutrochet.—M. Dutrochet has recently published a work on vital motion, in which he details experiments and discoveries, of a most interesting and extraordinary character, calculated to throw a new light upon an important portion of physiology. As Mr. D.'s discoveries are of extreme interest, and as no copy of his work, has we believe, yet reached this country, we extract from an analysis of it in the *Foreign Quarterly Review, No. I.* a notice of some of his most interesting observations. When we receive the book, we shall give further details.

" Having cut off the tail from a small fish, and preserved it alive in a vessel full of water, M. Dutrochet soon afterwards perceived, on the surface of the wound, a species of aquatic mouldiness, consisting of long filaments, each of which was terminated by a small swelling or bulb, perceptible to the naked eye. These filaments were transparent, but the bulbs were opaque, pointed, and resembled the capsules of a plant. He divided some of these filaments transversely, and having placed them, with a little water, in a watch-glass, under the microscope, saw some of the bulbs expel numerous globules through an opening situated at their apex, without any apparent contraction or diminution of their size, the space previously occupied by the globules being filled with water, which seemed 'to perform here the office of the piston of a syringe, for raising and expelling at the point of the capsule, the mass of globules which at first totally filled the capsule.'—p. 106.

" The whole of the globules were soon expelled from each bulb, and owing to a peculiar motion which they displayed at the instant of their expulsion, M. Dutrochet was inclined to believe that they were the animalcula described by Needham and Bory de Saint Vincent; but subsequent observations convinced him that this was not the case, but that they were seeds of the plant, on whom a transitory movement had been impressed by the force of their expulsion. Reflecting on this phenomenon, and believing that the water which was introduced into the part of the capsular cavity opposite to the point of expulsion was the mechanical instrument of the *vis a tergo*, which produced the expulsion of the globules, our author naturally inquired—whence comes this water? and by what power is it carried into the interior of the capsule? To enable him to answer these queries, he repeated his observations upon the bulbs of mould produced on dead animal matter in water, and also upon the little sac which contains the spermatic paste of the snail, and which, when placed in water, expels its contents in the same manner as the bulb of the mould. From these experiments, our author arrived at the conclusion, that these small hollow organs have the faculty 'of introducing with violence, into their cavity and through their sides, the water which bathes their exterior surface; and this in such a manner as to expel from that cavity substances which it previously contained.'—p. 114. M. Dutrochet was, as yet, unable to assign a cause for this *physico-organic* phenomenon, to which he applied the name of *endosmose;** but he ascertained, that it does not occur unless the matter contained in the little cavities be of a greater specific gravity than the water or fluid which surrounds them; and he conceived the possibility of demonstrating this, by obtaining an analogous result on a larger scale, and with a more manageable apparatus. For this purpose, he selected the cæcum, or blind-gut, of a young chicken, into which after cleaning it with pure water, he put 196 grains of milk, a quantity sufficient to fill one half of its cavity only; and then, having tied a ligature firmly round its open extremity, he placed it in water. After twenty-four hours he found that the cæcum had imbibed as much water as increased its weight 73 grains; and at the end of thirty-six hours, 117 grains of water had entered it, and the gut was become very turgid. But from this time the weight of the intestine gradually diminished; and, at the termination of thirty-six hours, it had lost 54 grains of the water which it had previously imbibed, and the milky fluid within it had become putrid. The temperature during the experiment was from 18° to 21° degrees of Reaumur. The repetition of this experiment with various modifications, and with different fluids introduced into the gut, 'decidedly demonstrated, says M. Dutrochet, 'that the introduction of the water into the organic cavity depends altogether on the contained fluid being denser than that containing the cavity. As long as this fluid remains undecomposed, the endosmose continues; but the instant that it becomes putrid, the endosmose ceases, and the water, instead of entering into the cavity as before, passes out of it, and with as much rapidity as it entered.'—p. 125. He at first attributed the passing out of the water to the ceasing of the endosmose; but he soon ascertained, by reversing his experiments, that it is as much a specific action of the organic membrane as that which causes the introduction of the fluid; and that when the gut was filled with a thinner fluid than that in which it was placed, the fluid passed out of it with as much rapidity as it entered in the opposite experiment. This action M. Dutrochet has named *exosmose*.[*] He next ascertained that when chemical fluids, even of a less density than water, are employed, *endosmose* takes place when the solution contained in the closed gut is alkaline, and *exosmose* when it is acid.

---

* From ενδον, inward; and ωσμος, impulse.

"As *endosmose* produces an excess of turgidity in any hollow organ endowed with it, and necessarily extends the sides of the cavity so as to cause them to re-act upon the contained fluid, our author conceived the idea that this would be sufficient to cause water to ascend in a tube, the inferior extremity of which should be fixed into a hollow organ in the state of endosmose, an opinion which was confirmed by experiment. Among other experiments, contrived to prove this fact, he fixed the open end of a glass tube, six decimetres in length, and the bore of which was five milimetres in diameter, into the cæcum of a chicken, filled with a solution of gum Arabic; and having plunged the closed gut into rain water, he supported the tube in a vertical position. During twenty hours the fluid was perceived ascending in the tube until it reached the top, out of which it flowed; and this it continued to do until the third day, when it began to sink; and, on the fourth day, the cæcum being opened, the fluid was found to be putrid. Similar results were obtained by employing the swimming bladder of the carp, and even the inflated pod of bladder senna, (colutea *arborescens*,) instead of the cæcum, demonstrating that endosmose was not confined to the organic membrane of animal cavities, but was equally the property of vegetable membrane.

"The mere fact of a thin fluid, separated from a denser by an organic membrane, passing through that membrane towards the denser, would naturally excite in a philosophic mind the idea that this effect might be the result of an electrical action, the contact of bodies of different densities being a well known cause of electricity; our author, therefore, formed the opinion that it is the electrical influence which impels the molecules of the liquid through the organic membrane, both in *endosmose* and *exosmose*; and he was confirmed in this theory by the following experiment of M. Porret. This philosopher having divided a cylindrical jar into two compartments, by means of a bladder, filled one of these compartments with water, and put a few drops only into the other. He then placed the negative pole, (*zinc*, or *the less dense*,) of a galvanic pile into the compartment filled with water, and the negative, (*copper*, or *the denser*,) into that which was nearly empty: the water was forced through the bladder into the empty part of the jar, and continued to flow into it until its surface was much higher than that at which it stood in the part originally full. Imitating this experiment, M. Dutrochet having tied one end of a glass tube into the cæcum of a chicken, into which also he fixed another capillary tube, passed the negative wire of a galvanic pile, through a cork fitted to the first tube, into the cæcum, while the positive wire was placed in the water into which the cæcum was put. The cæcum soon became turgid with the water which had passed into it through its sides, and this rose in the capillary tube, and flowed over its open orifice, as in the experiment in which fluids of different densities only were employed. When the wires were reversed, and the cæcum empty, no fluid passed into it, but if the cæcum was previously filled with water, it was quickly emptied. Similar results were obtained when the pod of bladder senna, (colutea *arborescens,*) was used instead of the cæcum, as in the former experiments; but not when inorganic substances were employed: and this is the more remarkable, as the condition of organic membranes, which fits them for *endosmose* and *exosmose,* continues after they have been dried, it being only necessary to soak them in water to renew their power of displaying these faculties. From his experiments with electricity, our author concludes, that all the vesicles, constituting the tissues of animal and of vegetable bodies, operate as minute Leyden phials electrified negatively within, and positively without; and from this continuing to be the case, as long as the integrity of the animal and vegetable textures remains unimpaired, these vesicles continue turgid by endosmose.

---

[*] From ἐξ, out; and ωσμος, impulse.

"It was important to ascertain the effect of temperature on *endosmose;* and M. Dutrochet, after repeated experiments, ascertained that it is augmented in an increased temperature; a result which corresponds with the fact, that by increasing the temperature of two metals, the contact of which produces electricity, the intensity of the electrical current is increased. Another proof of the electrical nature of endosmose was obtained by nearly filling the cæcum of a chicken with white of egg, closing it and plunging it into water. The cæcum soon became turgid; and, being opened after the lapse of some hours, its inner surface was found to be lined with a coating of coagulated albumen; which we know to be one of the effects produced by currents of voltaic electricity.

"M. Dutrochet observes that the organs of animals, with the exception of the blood-vessels in those that possess a circulation, are composed of congeries of vesicles, a fact which can be readily demonstrated in the mollusca, the fundamental conditions for endosmose an exosmose are found in animals; and that their vascular systems may be regarded as merely the channels for irrigating, as it were, the vesicular parts, and carrying to their elementary vesicles new organic matter, which they deposit by filtration by the aid of endosmose. He illustrates this position by examining the phenomena attending *inflammation.* The inflamed part becomes turgid, owing to the fluids in the neighbouring parts being attracted to it by *adfluxion;* the increased calibre of the arteries is owing to the augmented supply of blood which the adfluxion determines to the inflamed part; whilst the veins are dilated by the more than ordinary impulse of the blood, which this part supplies to them in greater abundance and with a greater force than usual. 'Thus,' says our author, 'the inflamed part is at the same time the termination of affluxion and the origin of impulsion for the blood. We have already seen that such are exactly the effects of endosmose in plants. No doubt, therefore, can remain that inflammation is a phenomenon of endosmose. Now this phenomenon, the effects of which are so visible in the morbid state of the body, exists equally in the natural state, but in a less degree of intensity.'—p. 194.

"An objection here presents itself, that all turgescence cannot be regarded as a morbid *hyperendosmose,* to use the language of our author, as a state of turgescence, for example the erectile, is perfectly compatible with a healthy state of the parts. This objection M. Dutrochet has anticipated, and contends that the two states are essentially different, the erectile depending upon one occasional cause only, whereas the morbid depends upon many; for instance, the introduction of foreign matters into the organic tissue, the alteration of the substances contained in the elementary vesicles, and their greater or less fluidity: and he regards it as certain, that the alteration of the fluids contained in these vesicles is the sole immediate cause of inflammatory diseases.

"To the attraction of the blood in the capillary branches of the arterial system, M. Dutrochet ascribes the empty state of its vessels after death; and contends that both the full state of the veins, and the cause of the progression of the blood in them towards the heart, may be explained on the same principles as the ascent of the sap in plants. He admits, however, that other circumstances influence the flow of the blood in the veins; as for example, when there are no capillary ramifications between an artery and a vein, but the one vessel terminates directly in the other, as in the young salamander, in which case the contractile power of the heart is felt through the whole circuit. He regards the idea of a contractile power in the capillary vessels as purely hypothetical; for although these vessels may re-act upon the blood by their elasticity, no real contraction, "incurvation des fibres," has ever been detected. He does not deny the probability of Dr. Barry's theory, that the pressure of the atmosphere, in conjunction with a vacuum formed in the chest during respiration, is the cause of the progression of the venous blood towards the heart, but regards it as an accessory peculiar to the mammalia and birds.

'Thus the circulation of the blood is a complex phenomenon, depending on the concurrence of many different causes, at the head of which is found for one part, the contraction of the heart, and for another, the endosmose of the capillaries; endosmose, which is, at the same time, the cause of adfluxion and that of impulsion.'—p. 196.

"He also applies his theory, with much apparent success, to the lymphatic system, and regards the ganglions as motory organs, maintaining, by adfluxion and impulsion, the motion of the fluids in these capillary vessels.

"We have already stated the opinion of our author, that inflammation or morbid hyperendosmose depends, chiefly, upon the alteration of the subtances contained in the elementary vesicles. These may, nevertheless, preserve their integrity, for it is not the containing but the contained parts which are altered. The adfluxion in morbid hyperendosmose extends itself according to the intensity of the disease; and if it be what is termed a vital part that is affected, this becomes a dangerous centre of adfluxion, unless we can divert the fluids to another point by exciting a more powerful hyperendosmose in a less vital part. It is in this manner, according to our author, that blisters, some kinds of purgatives, leeches, and all revelling agents operate; and on this principle he accounts for the benefit derived from the application of cupping glasses in cases of poisoned wounds.

"We must admit, with M. Dutrochet, that the means of combating inflammation have been, hitherto, almost empirical. He, however, conceives that the theory which he has advanced throws considerable light on the physiology of this diseased state, and confidently assumes the following as the most rational method of curing morbid hyperendosmose.

"1. The abstraction of the substance, the presence of which in the organic tissue causes hyperendosmose. When this is a solid body, it must be mechanically abstracted; and if it proceed from an altered state of fluids, the changed fluids must be evacuated by leeches and scarifications, with cupping: the efficacy of which in relieving inflammation experience has fully established.

"2. General blood-letting, by diminishing the flow of the arterial blood in all parts of the body, must necessarily lessen it in the inflamed, or, in our author's words, hyperendosmosed part: and as the void thus caused in the large vessels can only be filled by the general depletion of the capillaries, the inflamed part will become less turgid, and the hyperendosmose be diminished.

"3. Leeches and cupping in the vicinity of an inflamed part relieve the hyperendosmose in two ways. 1. The evacuation of the blood procures the general depletion of the vessels. 2. Their suction causes a derivation in the direction of the affluxion.

"4. An energetic hyperendosmose excited in one part, tends to diminish this state existing in another part. This is the result of the change produced in the direction of the affluxion, the fluids being always directed to that part in which the most powerful hyperendosmose exists. In this way blisters operate, and the relief is always in proportion to the evacuation produced.

"5. As the addition of water, by thinning the fluid contained in the organic tissue, or by weakening its chemical qualities, diminishes the intensity of the endosmose, the introduction of water into the organic tissues is a powerful method of combating inflammation.

"6. As there are inflammations, or states of morbid hyperendosmose, which cannot be cured by the means above-mentioned, M. Dutrochet conceives that his theory points out a sixth method of cure. We know, says he, that fluids introduced into the organic tissue by endosmose expel those which already exist in it; so that, in a state of morbid hyperendosmose caused by a chemical change of the fluids, if we can introduce into the organic tissue chemical fluids capable of producing a greater hyperendosmose than already exists, the matters causing this will be expelled by means of the increased activity of the endosmose. In this manner cantharides and many other acrid matters prove useful; and mercury cures syphilis. To this principle also, without our author being aware of it, may be referred the cure of syphilis without mercury, by simple dilution and rest, as has been lately practised. The acrimony of the virus is gradually lessened, the energy of the endosmose diminished, and the disposition to the formation of the morbid state of the fluids, which had been induced by the introduction of the virus, is overcome by the restoration of the milder state of the secreted fluids, selected from the nutritive juices.

"7. The intensity of the hyperendosmose may be diminished by the introduction into the economy of certain causes of *exosmose*. Acids, in general, are of this description, and it is probably this property which renders acidulous beverages so useful in inflammations. On the contrary, M. Dutrochet regards solutions of gum, of extract, and of sugar hurtful, as being productive of endosmose. If emollient cataplasms produce a beneficial effect, when applied to inflamed parts, it is to be ascribed, according to our author, to the fluid being absorbed, and favouring exosmose: and he is of opinion that baths can be useful only as the liquids used for forming them are more or less dense than the organic fluids, depending on the nature of the disease.

"M. Dutrochet having concluded his remarks on inflammation, commences the consideration of the advantages resulting from the application of his theory to animal *absorption* and *exhalation*. He objects to the theory advanced by M. Majendie, that absorption is the simple result of capillary attraction: and then proceeds to prove, that absorption is the result of endosmose, and that elective absorption depends altogether upon the relation of the fluids exterior to the organic tissue and those contained in it. Thus, in the intestines, chyle is absorbed, but fæcal matters are rejected, because, as his experiments have proved, fæcal matter is an agent productive of exosmose, while chyle possesses the opposite property.

"'If then the chyle possesses such qualities as fits it to be absorbed by the organic tissue, for the same reason the fecal matter possesses qualities which cause it to be rejected.'—p. 214.

"The mucous membrane of the intestines is a chemical filter, that permits those substances only which are endowed with certain chemical qualities to pass: but although this is a species of secretion, yet it is merely a separation of mixed substances; similar, for example, to the secretion of urea by the kidneys; for it is well known, from the experiments of M. Prevost and Dumas, that urea exists ready formed in blood: whereas many secretions are the result of a separation and a new combination of the elements of the nutritious fluid. The general theory of secretion of vegetables is applicable to animals: and the organs employed in this function, like those of vegetables, are hollow sacs or cells, through the sides of which the secreted fluid is introduced. This is manifest in insects and the mollusca, the secretory organs of which are composed of a congeries of vesicles, among which the blood-vessels and the excretory canals ramify. The sides of these vesicles are true chemical filters, which, under the influence of an electrical current, transmit, whilst at the same time they modify, certain elements of the nutritive fluid. The secreted fluid is expelled, in the natural state, towards the excretory canals; but, if these be obstructed, it passes into the blood-vessels, thence result certain morbid accidents. In this point of view, nutrition itself is a modification of secretion: the nervous vesicles secrete the nervous matter which fills them, and the muscular vesicles that substance to which they owe their peculiar vital properties. 'Each of these vesicles expel at the same time substances previously secreted, and these fall into the blood-vessels, the only excretory vessels of secretion and nutrition.'—p. 217.

"M. Dutrochet conceives, with much truth, that there is no continual waste and renewal of the solid parts, as is generally supposed; and adds, 'if the containing parts renewed themselves continually, like the contained parts, it is probable that death from old age would never happen, since the living being would never be old.'—p. 218."

7. *On the Absorbents in Fishes.* By Professor FOHMANN.—More than half a century has elapsed since the discovery of the absorbents in birds, reptiles, and fishes, by Monro and Hewson, and during that period our knowledge on the subject, has made but very slender advances. Professor Fohmann, recently of Heidelberg, now of the University of Liege, has recently been investigating the absorbents in fishes, and he has not only discovered them in many of this class in which their existence had not previously been demonstrated, but has also given in a late work, (*Das Saugadersystem der Fische,*) a more accurate account of them than has ever hitherto been published.

Monro and Hewson state that the absorbents terminate or rather originate by open mouths; Professor Fohman, after giving good grounds for doubting the accuracy of the observations of the former, and showing the fallacy of the experiments of the latter, states "that he never could discover open mouths in the absorbents of the torpedo and sea-wolf, in whom those of the mucous membrane of the intestinal canal can be seen and accurately examined by the naked eye; and as little could he find them in those of other species of this class of animals. He states that these vessels in fishes invariably terminate in blind extremities, *en cul de sac*, at this place constituting tubes of greater diameter than they do a little further from their commencement—i. e. in their course towards the centre of circulation; and that, in most parts of the body, they here represent pouches or dilatations, which have an internal smooth surface, and an external one having more or less resemblance to the appearance of cellular substance.

"It is known that in fishes the absorbents have no valves, with the exception of the places where they terminate in the venous system, and also that there are no absorbent glands. These vessels, however, do not preserve a continuous vascular character throughout their course. Having preserved this for a short distance, they suddenly increase in size, run together, and either constitute or terminate in sacculi or plexuses. The internal surface of these sacculi or plexuses does not present a smooth surface, but a rough irregular one of filamentous, membranous, or cellular substance-like projections; so that what externally appears as one simple sac, is divided internally into several by these lamellæ, (*blätchen.*) This is readily seen in the absorbent sacculi, (*saugadersäcken,*) in the vicinity of the stomach and intestinal canal of the eel, and in the absorbent plexuses, (*saugadergeflechten,*) of the stomach of the torpedo. These absorbent sacs and plexuses, which are not confined to the class of fishes, but are met with in the amphibiæ, are parts well worthy of notice and consideration.

"On the subject of the communication between the absorbents and veins, our author observes, that those who have assumed such a communication to exist, do not seem to have bestowed sufficient time on their investigations, and have not gone to work with the caution and precision which this very difficult subject requires. He instances the observations of Lippi[*] as being particularly liable to this objection, and not at all to be depended on; in truth, they are full of error. The observations of the Italian are asserted to have been founded on examination of the absorbents in man, the horse, and the goose. He represents a connexion as existing between the extremities of the absorbents and extremities of the veins, like that between the capillary arteries and veins, the one kind of vessel passing into, or rather continuing itself into the other. Fohmann, after the most numerous and successful injections of the absorbents in man and the mammalia, has never seen this communication. The circulating system forms a shut circle; the only communication between absorbents and veins is that where the absorbent opens through the coats of the vein, *insertio lateralis;* all communication between capillary vessels is *insertio terminalis*—the transition of the extremity of an artery into the commencement of a vein. Lippi has represented the absorbents as communicating by means of greater or smaller twigs, branches, and trunks, with the venous system, and that out of the limit of the absorbent glands, those twigs, branches, and trunks opening directly into the vena cava, the internal pudic and emulgent veins, and the vena azygos. Fohmann asserts that, in man and the mammalia, a communication between the veins and absorbents only takes place in the absorbent glands; and that none exists by means of such large vessels, or out of the absorbent glands, as stated by Lippi, who, in fact, has taken veins for absorbents. In the animals in whom absorbent glands do not for the most part exist, in fish, amphibia, and birds, we can observe the communication between the absorbents and veins, in different parts of the body, with the naked eye. The absorbents which Lippi represents as proceeding from the under part of the intestines of the goose into the renal vein, are the vessels of whose connexion with the renal or sacral vein Fohmann gives an account in his small work published six years ago.

"A curious circumstance discovered by our author in certain fishes, is that the contents of the absorbents are not all poured directly into the venous system. In the eel, for instance, a branch goes off from the trunk of the absorbent system, representing the thoracic duct, towards a small receptacle in the vicinity of the gills. Out of this globular receptacle proceeds a vessel, which divides into branches; these branches are distributed to the gills, in the same way as those of the pulmonary artery, and from their extremities are returning vessels, which bring back the lymph, in the same way as the pulmonary veins return the blood; the trunk formed by these branches opens into the thoracic duct immediately before its termination in the jugular vein."—*Lond. Med. and Phys. Journ. Oct.* 1827.

8. *On the Gastric Juice.*—"The *Gastric Juice*, which has been made so frequently the subject of inquiry, and with such discordant results, has been examined anew, both by Leuret and Lassaigne, and by Tiedemann and Gmelin; and our information as to its properties and agency in digestion has in consequence been rendered much more precise. Under this head the most extensive and valuable researches unquestionably appear to be those of Tiedemann and Gmelin.

"MM. Leuret and Lassaigne allege they have invariably found the gastric juice to be acid; they state its component parts to be water, hydrochlorate of ammonia, chloride of sodium, mucus, an animal principle soluble in water, phosphate of lime, *lactic* acid; and they impugn the accuracy of the experiments of Dr. Prout, who, it is well known, was lately led to infer that the free acid evolved during digestion is the hydrochloric.

"The Heidelberg physiologists, on the contrary, inform us, that if the contents of the stomach be examined after a long fast, and without any stimulus being applied to its villous membrane, the fluid found in it is a clear, ropy, faintly-opaque liquid, which is almost or entirely destitute of acidity. But if any stimulus, even of the simplest kind, is applied to the inside of the stomach, then the fluid secreted is uniformly acid, and the degree of acidity appears to be proportional to the degree of the stimulus. Pure gastric juice they found to be best procured by making animals swallow quartz pebbles after a long fast, and killing them in an hour. It was generally grayish-white, ropy, and decidedly acid. It contained, as procured from the dog and the horse, some mucus, osmazome, and salivary matter, alkaline sulphates and hydrochlorates, the alkali being chiefly soda, phosphate and muriate of lime, other salts in minute proportion; and the acidity was owing to the *hydrochloric and acetic acids* in the dog, and to these conjoined with the *butyric acid* in the horse. That part of their chemical inquiries which regards the free acids seems to have been conducted with great care; and certain criticisms of Leuret and Lassaigne have given occasion to an appendix, consisting of a defence of themselves, and of Dr. Prout, which we cannot help thinking is quite satisfactory. As the lactic acid of Leuret and Lassaigne is now acknowledged by Berzelius to be a variety of the acetic, all parties may be understood to be agreed as to the existence of that acid in the gastric juice. The researches of Prout, Children, and Graves, confirmed as they have been so amply by Tiedemann and Gmelin, likewise establish the presence of the hydrochloric acid. The existence of the butyric is more doubtful.

---

[*] Illustrazioni Fisiologiche del Systema Linfatico-chilifero Mediante la Scoperta di un gran numero di Communicazioni di esso col Venoso; del Prof. Regolo Lippi, Firenze. 1825. 4.

"When the secretion of the gastric juice is elicited by its natural stimulus, food of various kinds, it has been remarked by Leuret and Lassaigne, as well as by Tiedemann and Gmelin, that the chymous mass is invariably acid, and that its acidity is owing to the acids mentioned above; and Tiedemann and Gmelin farther maintain as the result of their experiments, that its acidity is greatest when the food is most difficult of digestion. In dogs and cats the greatest acidity was remarked when they were fed with coagulated albumen, fibrin, bones, gristle; it was less when they were fed on starch, gelatin, potatoes, rice, and when they were fed with liquid albumen, the alkalinity of the food was nearly sufficient to neutralize the acidity of the gastric juice. The quantity secreted during digestion seems to be very great; Leuret and Lassaigne having found, that when the gullet of a horse was tied so as to prevent the secretions of the mouth and gullet from entering the stomach, a full meal of oats became completely saturated with juice in four or five hours.

"So much with regard to the nature and composition of this fluid. Its power of dissolving the food has likewise been made the subject of experiment by the Parisian and by the Heidelberg physiologists; and they agree in confirming the statements of Spallanzani, Stevens, Grosse, and others, and in contradicting the later results of Montégre, who imagined he found that the gastric juice does not act out of the body, and whose opinion has since regulated that of the French school generally. MM. Leuret and Lassaigne remarked that the fluid procured by long sponges from the stomach of a duck while fasting, when kept upon bread crumbs at a temperature of 88° Fahr. soon divided them into minute particles, and formed with them a homogeneous mass precisely like chyme; and that when flesh was mixed with the gastric juice of the dog, it was quickly softened and lost weight. The observations of Tiedemann and Gmelin are more detailed. The fluid found in the stomach of the dog during the digestion of bones and coagulated albumen was made the subject of experiment, and comparative observations were made with water and with milk. Various kinds of food were tried, such as bread, coagulated albumen, raw flesh, boiled flesh; and in every instance it was observed that the bread was broken down in the course of eight or ten hours into a pap, and the surface of the beef and of the albumen was converted into a pulp, which could be easily scraped off. It is evident that Montégre failed in procuring similar results, because the fluid with which he operated was not gastric juice, secreted in consequence of the application of some stimulus to the stomach, but a mixture of saliva, the mucus of the gullet, and the fluid which Tiedemann and Gmelin found in the stomach while empty of food and not stimulated.

"The solvent power of the gastric juice, therefore, is now placed beyond all question. It is only the German experimentalists who have thought of trying whether this property is accounted for by the composition of the fluid; and of attempting to accomplish, by means of the simple substances contained in the gastric juice, the same solution or digestion which is effected by the gastric juice itself. Their experiments, however, are not complete. They have remarked, that dilute acetic acid, dilute hydrochloric acid, a weak solution of acetate of ammonia, and a solution of hydrochlorate of ammonia, severally dissolve more or less of most animal substances which are used as articles of food. They have not tried their effects conjunctly, as they exist in the gastric juice.

"Although these experiments, however, are not satisfactory, no doubt can exist that the gastric juice possesses the power, as a mere chemical agent, of effecting the solution of a great variety of kinds of food. Whether this chemical property is, with the aid of the churning action of the stomach, sufficient for effecting the process of chymification, remains now to be considered. The mucous crypts of the stomach evidently pour out an abundant mucus; but it is probable that this only serves for lubricating the stomach and food, and perhaps for diluting it. It is impossible, indeed, to collect the mucus of the stomach, so as to ascertain whether or not it possesses also the power of dissolving vegetable and animal matter: but this certainly appears improbable. The bile has no share, as has been imagined by some physiologists, in converting the food into chyme. According to the late experiments of Brodie and Mayo, and those presently to be mentioned of Leuret and Lassaigne, and of Tiedemann and Gmelin, chymification goes on perfectly in animals fed after the biliary duct has been tied. There is no other apparent agent, therefore, in the process, except the gastric juice and the muscular action of the stomach. It appears to us, however, that the question should have been set at rest by subjecting the food during artificial digestion to a process of churning, equivalent to that to which it is subjected by the stomach, and then comparing the chemical changes which take place with those produced on the principles contained in the food after they have been subjected to natural chymification."—*Ed. Med. and Surg. Journ. October*, 1827.

---

9. *On the uses of the Bile.* By Professors TIEDEMANN and GMELIN.—Professors Tiedemann and Gmelin, conceive, in the first place, that the bile by its stimulant properties "excites the flow of the intestinal fluids, which is clearly proved to be the case by the unusual dryness of the feces in jaundiced persons, and in animals whose duct has been tied. In the next place, it probably stimulates the intestinal muscles to action. In the third place, considering the abundance of highly azotised principles it contains, it probably contributes to animalize those articles of food which do not contain azote. Fourthly, they believe it tends to prevent the putrefaction of the food during its course through the intestines, because when it is prevented from flowing into them their contents appear much farther advanced in decay than in the healthy state. Fifthly, as already mentioned, it probably tends to liquefy and render soluble the fatty part of the food. But, lastly, they are disposed to consider it also as an important excretion.

"The arguments by which they endeavour to support this opinion, and more particularly to prove that it is supplementary to the function of the lungs, are ingenious, if not conclusive. They first show, from the relative size of the *vena portæ* and hepatic ducts, from the more intimate connexion of the biliary capillaries with those of the *vena portæ*, than with those of the hepatic artery; and, finally, from the experiments of Malpighi, recently confirmed by those of Simon—that the bile is a secretion from venous, not from arterial blood. They next prove that a great number of the principles of the bile, such as its resin, colouring matter, fatty matter, mucus, and salts, are thrown out of the body with the feces, in the natural state of the biliary system, or by the urine, and into the cellular tissue, when the excretory duct of the liver is obstructed. These principles all contain a large proportion of carbon, and would appear, therefore, to be intended to carry off the excess of that element which is introduced into the system with the vegetable part of the food, and which is not thrown off by the lungs. In the lungs it is thrown off in a state of oxidation; in the liver it is thrown off chiefly in union with hydrogen, as in the form of resin and fatty matter. That the bile is thus intended to assist the lungs in decarbonizing the blood appears, they conceive, from the following facts. The resin of the bile abounds most in herbivorous animals, whose food contains a great disproportion of carbon and hydrogen. But, what is of more importance, the pulmonary and biliary organs are in different tribes of animals, nay, even in different individuals of the same species, in a state of *antagonism* to one another. The size of the liver and the quantity of the bile are not proportionate to the quantity of food and frequency of eating; but inversely proportional to the size and perfection of the lungs. Thus, in those warm-blooded animals, which have large lungs, and live always in the air, the liver, compared with the body, is proportionally less than in those which live partly in water. The liver is proportionally still larger in reptiles which have lungs with large cells, incapable of rapidly decarbonizing the blood—and in fishes, which decarbonize the blood but slowly by the gills—and above all, in molluscous animals, which effect the same change very slowly either by gills or by small imperfectly developed lungs. It is also worthy of remark, that the quantity of venous blood sent through the liver increases as the pulmonary system becomes less perfect. In the mammalia and in birds the *vena portæ* is formed by the veins of the stomach, intestines, spleen, and pancreas; in the tortoise it receives also the veins of the hind-legs, pelvis, tail, and the *vena azygos;* in serpents it receives the right renal, and all the intercostal veins; in fishes it receives the renal veins, and those of the tail and genital organs. Farther, during the hybernation of certain animals of the class mammalia, when the respiration is suspended, and no food is taken, the secretion of bile goes on. Another argument is drawn from the physiology of the fœtus, in which the liver is proportionally a great deal larger than in the adult, and in which the bile is secreted abundantly, as appears from the great increase of the meconium during the latter months of utero-gestation. The last argument is drawn from pathological facts. In pneumonia and phthisis the secretion of the bile, according to the observations of our authors, is increased; in diseases of the heart the liver is enlarged, and in the *morbus cœruleus* the liver retains its fœtal state of disproportion In hot climates, too, where, in consequence of the greater rarefaction of the air, respiration is less perfectly carried on than in colder climates, a vicarious decarbonization is established by an increased flow of the bile."—*Ibid.*

10. *On the Chyle.* By Professors Tiedemann and Gmelin.—"Chyle is now well known to consist of a serous and a fibrinous part, the latter of which separates like that of the blood by spontaneous coagulation. The firmness of the coagulum seems to depend chiefly on the quantity of fibrin. Chyle hardly coagulates at all before it has passed through the mesenteric glands. After passing through them, the fibrin begins to appear, and it is much more abundant after the addition of the lymph from the spleen, which contains a very large quantity of fibrin. The quantity is considerably lessened in the chyle of digestion; and it is increased in the chyle formed after the ligature of the *ductus choledochus.* It abounds in the lymph from the lower extremities. In like manner the chyle before passing the mesenteric glands contains no red particles; but it does immediately afterwards, and more particularly after it is mixed with the lymph from the spleen, which abounds with them as with fibrin. These particles are also, like the fibrin, very much diminished in the chyle of digestion, and proportionally to the nutritiveness and digestibility of the food. They are increased by tying the choledochus duct. They abound in the lymph

of the lower extremities. The chyle frequently contains fatty matter—very little or none, however, if the animal is fasting, or has fed on food which does not contain fat—and most when the food is very fatty, when, for example, butter is mixed with it. The fatty matter is not dissolved, but exists merely in a state of minute division and suspension, giving to the chyle its peculiar white colour; for the colour is removed, and the chyle rendered limpid by ether which carries away the fatty particles. There is no fatty matter in the lymph of the lower extremities; it is much less abundant in the thoracic duct than in the chyle before it passes through the mesenteric glands, and it hardly exists in the chyle at all when the ductus choledochus is tied. The serum of the chyle is very generally alkaline; in two instances only, was it found neutral, namely, in a dog fed on fibrin, and in a sheep fed on oats. Its solid contents differ in the chyle of fasting animals and in that of digestion. In the horse while fasting the solid part of the serum consists on an average of 76.2 per cent. of albumen, 6.7 of animal matter soluble in water, and 16 animal matter soluble in alcohol; but after digestion of 61 albumen, 3 animal matter soluble in water, 34 animal matter soluble in alcohol, of which twenty parts were fat. Our authors were not able to decide whether the total amount of solid matter in the serum is increased or diminished during digestion."—*Ibid.*

---

11. *Superfœtation.*—A mare, five years old, was delivered at intervals of a quarter of an hour, first of a horse and then of a mule. She had been covered by a horse and five days afterwards by an ass.

---

12. *Nourishment by Clysters.*—Sir **Astley Cooper** mentions that he knew a lady who had a stricture in her œsophagus, who was supported forty-five days by clysters of broth and wine, when she could not swallow even a drop of water.—*Lectures on Surgery, Vol. III.*

---

13. *Metastasis of Erysipelas of the Head, to the Serous Membrane of the Heart.* By **Robert Adams**, Esq.—Mr. Adams thinks that there can be no doubt that erysipelas affects the heart. He has, he says, seen two cases of erysipelas of of the head and face which terminated fatally by metastasis to the heart. "In one, the erysipelas succeeded to a wound in the head, in the other, it came on spontaneously. In both, as soon as the external redness receded, the breathing became distressed; the countenance agitated, and rest in the horizontal position impossible. Yet the general symptoms of pericarditis were so obscure, as to excite no suspicion in the mind of the attendants as to the real nature of the case. Both were weak and debilitated patients, in which this affection supervened towards the close of a long illness: neither lived more than two days after the sudden disappearance from the surface of the erysipelatous redness. The countenance, the breathing, the state of the pulse, and apparent debility in both, seemed to forbid any active interference on the part of the medical attendants, who had no suspicion of the real nature of the case, (so obscure were the symptoms of pericarditis,) until the examination of the body disclosed it. The pericardium contained some turbid fluid, but had contracted no adhesions to the heart. A quantity of lymph, evidently recently effused, lined the concavity of the pericardium, and thickly and unequally covered the surface of the heart itself: appearances which left no doubt as to the immediate cause of the death of these individuals. The late Mr. Thomas Roney and Mr. Cusack met with similar cases; and the latter preserves a specimen of the morbid appearances which the dissection of a similar case presented, in the museum in Park street."—*Dublin Hospital Reports, Vol. IV.*

---

14. *Case of Conception with Closure of the Vagina.*—Professor **Rossi** relates the case of a married woman, who was attacked with violent abdominal pains. On examining the patient, he found that the external organs of generation were entirely wanting, that there were no hairs on the mons veneris, and that there

did not exist any signs of puberty. He therefore could not entertain the idea of her being pregnant, but attributed the pains to there not existing any passage for the discharge of the menses; he therefore opened an artificial passage for them by making an incision three inches long in the direction of the vagina, and, on introducing his finger, he ascertained that the woman was really in labour. He enlarged the incision a little and the woman was delivered of a live male fœtus. M. Rossi prevented the new-made vagina from closing by introducing into it a piece of intestine which he then distended with air. This vagina afterwards admitted the introduction of the penis, and two years afterwards the woman was safely delivered of a second child. As M. Rossi thought it impossible that the patient could conceive without there existing any external communication, he inquired of the husband, and discovered near the sphincter of the anus at its internal part, a very small opening, which would scarcely admit a very fine probe, and communicating with the artificial vagina. —*Memorie della Reale Acad. delle Sc. di Torino*, Tomo xxx.

15. *Causes of Monstrosities.*—M. Velpeau has read to the Philomathique Society of Paris a memoir on this subject. He is of opinion that in a great number of cases, the monstrosity is the result of disease of the embryo, and particularly that the formation of two acephalous fœtuses which he presented could not in any other way be explained. The first was perfect except the cranium and brain, which were wanting, and bore evident traces of disease; the second was a mere trunk, the head, neck, and all the extremities being absent, and Mr. V. thinks that nothing could better explain the deficiency of the members than the supposition that they had been destroyed by gangrene. M. Larrey observed that this opinion of the causes of monsters is not new; that it prevails in Germany; and that there is at Berlin a valuable collection, which appears strongly to confirm the belief that monsters are the result of different diseases in the fœtus.—*Bulletin des Sciences Médicales, Aout*, 1827.

PATHOLOGY.

16. *Clinical Report on the State of Fever.* By M. Bally.—It is, says M. Bally, "by connecting morbid phenomena with the local lesions on which they depend or are connected, that the moderns have arrived at exact knowledge of those grave and complex affections to which the ancients have applied the vague terms of putrid, malignant, nervous, and adynamic fevers, which are in reality veritable *gastro-enterites* degenerated, or as they are more properly and precisely termed by M. B. *ileo-diclidites*, signifying *inflammation of the ileum and upper surface of the valve of the colon*, the parts most commonly affected in fevers. In examining the cases of fever detailed by various authors, and by Pinel among the rest, he considers it impossible not to conclude that the majority laboured under that state of the intestinal canal so well described by Broussais and his disciples. Those who have taken the pains to open many bodies after death by fever, afford innumerable proofs of the phenomenon in question, though they looked upon the disease as a concomitant or consequence rather than a cause of fever. In short, says he, if we compare the descriptions of putrid and malignant fevers, as handed down to us, with those of the gastro-enterites of the present day, we cannot but be struck with the resemblance. All allow that inflammation of the mucous membrane is a very common *attendant* on fever—and for his own part, M. Bally believes it to be the disease itself, or at least the first and principal lesion in fever.

"The fevers of the last quarter of 1826 have tended to confirm M. Bally in the truth of this doctrine; and what is more, they have enabled him to make some distinctions not hitherto much noticed, and to adopt an important and successful method of treatment.

"Scarcely had intermittents begun to subside, when inflammations of the digestive tube became prevalent. Some of them were hæmorrhagic, and terminated fatally in a very prompt manner. The greater number, however, assumed a low or typhoid type. These forms were more dangerous in proportion, as they succeeded early to the intermittent epidemic; and M. Bally conceived that there was an intimate connexion between the two epidemics, especially as the gastro-enterites frequently assumed a quotidian intermittent character. When this was the case, the antiphlogistic treatment did not succeed, and the sulphate of quinine was effectual. The state of adynamia, which often supervened in the course, or towards the close of the fever, did not appear to result from any primitive debility of the subject, or as consecutive of gastro-enteritis; but it seemed often to depend on the lesion of some other organ, over which the antiphlogistic treatment had not effectual control. The rigidity of the limbs, the tremors, the subsultus tendinum, the throwing back of the head, the delirium, the ramblings, the loquacity, the difficulty of expanding the chest—all these functional disorders, says our author, were far from constituting the debility. They showed themselves during the existence of the most acute irritation, and they subsided with it under a very active system of depletion. They must, therefore, have depended on disorder of some particular organ.

"M. Fodera considers the superior portion of the spinal marrow as the principal seat of affections truly adynamic; and our author partakes of the same opinion. He thinks this is confirmed both by experiments and by pathological anatomy. The above portion of spinal marrow has been often found softened in the dead body by our author, M. Bally. Stoll, whose authority is good on all points of practical observation, long ago remarked that putrid fevers did not always infer fevers of debility. He was somewhat astonished to find that bleeding and other evacuations cured the disease better than tonics. The oppression and the prostration of muscular power, although different in their nature, acknowledge the same cause. 'The first results from congestion; the second from inflammation of the spinal marrow.' Bleeding, he observes, is more effectual in relieving the former than the latter condition of parts. 'Thus, in the beginning of all adynamic fevers, the symptoms which constitute debility are owing to congestion or inflammation of the spinal marrow, either primitive or consecutive of gastro-enteritis.' We agree with our author that great errors are daily committed by pathologists in considering that there can be no *disorder* in a part during life, if no trace of change of structure be discernible after death. The organization of the brain, nerves, and their investing membranes, is so very delicate, that disorder of function sufficient to destroy life every day occurs, without alteration of structure. Hence the necessity of taking into consideration the symptoms, as well as the *post mortem* investigations.

"Numerous dissections, made with the greatest care, have convinced M. Bally that inflammation of the lower portion of the small intestine, and upper surface of the ileo cæcal valve, constitutes the first period of what are termed putrid or typhus fevers. If this inflammation be checked by nature or art, the subsequent symptoms of debility or putrescency do not occur. If not, the disease proceeds to ulceration or destruction of the mucous membrane. It is very rare to find any alteration of structure in the duodenum, jejunum, or colon. The cæcum itself is seldom affected, although the upper surface of the valve is so generally implicated in the disease. What can be the cause of this locality of the disease in the part above mentioned? M. Bally attributes it to the difference of acrimony in the contents of the small and of the large intestines. Nature, he says, is sometimes equal to the task of curing these ileo-cæcal inflammations, and in one instance this was effected by a profuse nasal hæmorrhage.

"The division of the disease into two stages or periods, is not only philosophic, but of great importance in a therapeutic point of view. In the first period, or that of inflammation, the antiphlogistic treatment may arrest the progress of the disease, and prevent the degeneration of the fever into the pu trid or ulcerative form. But this disease, though so formidable and fatal in its advanced stages, does yet commence in so insidious a manner, that the patient is not soon enough alarmed, and is seldom sent to an hospital till after the first or second week, when the local affection has made great head, and when the constitutional symptoms veil those of the primary topical affection. As soon as the symptoms indicate that the inflammation is passing into the state of ulceration, M. B. thinks it is necessary to abandon the antiphlogistic treatment, as far as sanguineous depletion is concerned, and to have recourse to powerful counter-irritation, so as to attract to the surface that morbid excitement which is going on internally. He does not, however, employ blisters for the purpose of counter-irritation. He has not seen advantage arise from their application in ileo-diclidites, but on the contrary, disadvantage, from the property which the lytta has of causing irritation in the internal tissues. Mustard cataplasms have produced much better effects in the way of revulsion, when the brain or other organ was sympathetically affected. But he seems to place his principal dependence on a plentiful crop of pustules, brought out by tartar emetic in the umbilical region. He has never seen any reason to conclude that the antimony is absorbed on these occasions. M. Bally employs a tartar emetic plaster rather than ointment, to the abdomen, it is far less troublesome, and far more powerful than the unctuous frictions. He sometimes applies a dozen of leeches to the part, and as soon as these animals fall off, he places a Burgundy pitch plaster, well powdered with tartrate of antimony, over the leech bites. In less than forty-eight or sixty-four hours, a plentiful crop of pustules is elicited, each pustule surrounded by an areola of inflammation. If any species of counter-irritation can relieve the internal malady, this will do the business. In very grave cases, M. Bally employs an antimoniated drink for several days in succession, with the view of copiously evacuating the acrimonious contents of the small intestines, which prove a powerful source of internal irritation.

“ ‘ Finally,’ says he, ‘ when quotidian exacerbations, analogous to the periodical accessions of an intermittent fever, become associated with the ileo-cæcal affection, the sulphate of quinine is to be exhibited, notwithstanding the redness of the tongue, the abdominal pains, the diarrhœa, and the various other signs of inflammation of the mucous membrane of the intestines.’ ”

M. Bally has given a number of cases illustrative of the doctrine which he maintains, and he considers them as proving that the peculiar inflammation and ulceration seen in these fevers, is not a common gastro-enteritis—the stomach being rarely affected, and that only secondarily—but an *ileo-diclidite*, or affection of the ilium and superior surface of the valve of the colon. M. B. dwells on the importance of recognising this pathology of the disease, if it be correct, as it will tend to restrain the routine practitioner from throwing in stimulants and tonics at an early stage of the disease, from dread of debility, and induce him to use proper depletion and cooling aperients, in order to prevent the ulcerative stage, that may otherwise ensue.

We have space for only one of the cases related by M. Bally in illustration, and we select a fatal case in order to show the appearances on dissection—cases of a similar description will be found in the report of our coadjutor Dr. Jackson, in the present number of this Journal, and we may further remark that the post mortem examinations at the Alms-house infirmary of this city, have shown the great frequency of ulcerations near the ileo-cæcal valve in fevers.

Case. “ Etienne, aged twenty-seven years, entered the hospital Cochin on the 11th of October, stating that he had been ill a fortnight. He had passed the whole of a day in a damp cellar occupied in hard labour, and from this he dated his illness, which commenced with shiverings, cephalalgia, pains in his limbs, &c.—the shiverings coming on regularly in the evenings. He had taken plenty of hot wine and bouillon. *16th day*. Face flushed—tongue coated in the middle, and red at the sides—thirst urgent—abdomen not tender—diarrhœa—pulse high, hard, and frequent—skin covered with perspiration. *Lemonade with gum—fifteen grains of sulphate of quinine in the twenty-four hours.*

17th. The same accession of symptoms in the evening—the same treatment. 18th. Delirium was added to the evening paroxysm, with watery diarrhœa—eighteen grains of sulphate of quinine. 19th. The evening accession was only known by a strong excitement of fever, the skin being moist. The sulphate of quinine suspended. *20th day.* Tongue very dry and red--much alteration for the worse—pulse strong and frequent. *21st day.* Delirium—decubitus dorsalis—nausea—pulse 90. *22nd day.* Not much delirium, but great prostration of strength—tongue and lips fuliginous—abdomen distended. *23d day.* Somnolency—head drawn backwards—subsultus tendinum—involuntary defæcation. The patient lingered on till the *38th day*, when he became affected with tetanic rigidity throughout the whole body, and, in a few days more he expired.

"*Dissection.*—The colon and the abdomen, in general, were distended with gas. The mesenteric glands were enlarged and inflamed—coats of the stomach red, but not softened—duodenum contained a yellowish matter—internal surface of the ileum covered with innumerable ulcerations of various sizes, but increasing in number as the valve of the colon was approached. The mucous membrane in the interstices was much thickened. The liver and spleen were enlarged. There were various traces of inflammation and effusion in the brain and its ventricles, as well as in the spinal marrow. The latter was softened for the space of two inches opposite the sixth cervical vertebra, and also there was a softening abreast of the first vertebra, (counting from below,) extending down towards the 8th dorsal vertebra. There was no other lesion of any consequence in any part of the body."—*Medico-Chirurgical Review, from the Journ. Gén. de Médecine.*

---

17. *Cancer of the Cardia.*—"A lady, aged about 40, became affected in the month of November, 1826, with common symptoms of dyspepsia, and her complaint was considered as such by her medical attendants. In the beginning of 1827, the patient began to complain of some difficulty in swallowing solid food, and sense of nausea at the stomach after meals. These symptoms gradually increased to inability to swallow food, or rejection of the food undigested a few minutes after it was taken, by a species of regurgitation rather than vomiting. Mr. Brodie, Dr. Johnson, Mr. Andrews, and others were consulted, and the case was considered to be disease about the cardiac orifice of the stomach. Blisters, local bleeding, and various means were used, without arresting, in the slightest degree, the rapid progress of the disease. During the month of May, very little food could be got into the stomach, and constant pain was complained of in the region of the cardia. The patient was nourished principally by enemata. In the beginning of June, she spat up, rather suddenly, a bloody kind of offensive matter, and all at once she acquired power, not only of swallowing, but of retaining the food. She now took a good deal of nourishment, and some faint hopes were entertained of recovery. But the discharge from the œsophagus increased in quantity, and became deteriorated in quality—the fever wasted the patient—the thirst was constant—bad matters were passed by stool—the stomach again rejected food, and death put an end to her sufferings towards the end of June. The dissection was carefully made by Mr. Howship, in the presence of Dr. Johnson, Mr. Andrews, and Mr. Carrick, of Kensington. The lower portion of œsophagus, where it enters into the stomach, was in a state of open or ulcerated cancer, for the space of about three inches. A communication had taken place with the right cavity of the chest, in which was found some sanious effusion, and a considerable portion of lung, contiguous to the original disease, was disorganized and broken down. The stomach itself, and intestines were sound.

"This disease was remarkable for the rapidity of its growth. Nine months previous to its fatal termination, the lady was in perfect health. In this respect, disease of the cardiac orifice of the stomach forms a striking contrast with that which affects the pyloric orifice. Where pyloric disease takes place, the food gets readily enough into the stomach—digestion goes on—and some chyme passes into the duodenum till the last. Emaciation is slow and progressive, and vomiting is a pretty constant symptom some hours after the food is taken into the stomach. Where the cardia takes on disease, on the other hand, the food is, in a great measure, prevented from getting into the stomach, and is regurgitated rather than vomited. The system is deprived of nutriment, and death soon closes the scene."—*Medico-Chirurg. Review, Oct.* 1827.

---

18. *Disease of the Liver.*—"A gentleman of very social habits, but by no means intemperate, had complained for some years of occasional uneasiness in the epigastrium, with slight symptoms of dyspepsia. Only three months before his death he was in his usual state of health, and presided at a public dinner. He had, however, an eruption on his face, which he was anxious to have removed, and for that purpose, put himself under the care of Mr. Macilwain, and Mr. Brookes, of Lambeth. Mr. M. put the patient on a reduced scale of diet, consisting of a considerable proportion of vegetables, and gave some mild alterative and aperient medicines. By these means the eruption entirely disappeared from the face; but now a new train of symptoms occurred. Some fulness appeared just under the ensiform cartilage, attended with pain, and dyspeptic phenomena. For these symptoms, leeches were applied, and the usual remedies prescribed. But the fulness quickly increased, and Dr. Cholmely's attendance was had, in addition to that of the two other medical gentlemen. The epigastric swelling, however, made rapid progress, and it was soon discovered that the edge of the liver could be clearly traced extending from one hypochondrium to the other, considerably below the margins of the ribs. The biliary secretion was now considerably deranged—the countenance was sometimes tinged yellow—a sickly sallowness took place—much gastric irritability prevailed—and emaciation advanced. On the 14th July, Dr. Johnson was called in, in addition, and this was about ten weeks from the first appearance of epigastric swelling. There was now a large prominent tumour in the epigastrium, and the liver could be felt as low as the umbilicus, extending from one side to the other, with hard rounded edges. It was conjectured now that there was some morbid growth, probably of an hydatid, tuberculated, or fungoid nature, independently of the general enlargement of the liver, which might account for the large rounded prominence in the centre. Nothing could, of course, be done, but lessen the gastric irritability by anodynes and effervescing medicines, while motions were procured by aperients. The prominent symptoms were now paroxysms of severe pain along and under the edges of the enlarged liver, which pain was considered by the medical attendants as seated in the bowels, and not in the tumour itself. The unfortunate patient could only lie on his right side—he had constant fever—thickly coated tongue—thirst—loss of all appetite—very morbid secretions from the bowels—and loaded urine. His countenance was indicative of visceral disease. Sir Astley Cooper was now added, in consultation; but, alas! the disease was beyond the reach of art! The patient lingered till the 29th July, when he rather suddenly expired.

"Dr. Johnson and Mr. Brookes examined the body at eight o'clock the same evening. There was some serous effusion in the abdomen, which was principally occupied by an immense liver, or rather tumour of precisely the appearance of brain. Not a particle of the original natural structure of the organ could be discovered. All was a homogeneous encephaloid mass, in which neither vessel nor duct could be traced by the naked eye. This enormous encephaloid growth, (for it could hardly be called liver,) had pushed up the diaphragm before it, and reached to the very summit of the thorax on the right side, descending below the umbilicus. Extensive adhesions had glued it to the stomach, transverse arch of the colon, and other contiguous parts. In a groove on its concave surface was found the gall-bladder, containing a thin dark-coloured fluid bearing little resemblance to bile. There was no other disease worth mentioning."—*Ibid.*

19. *Diabetes Mellitus.*—A soldier, aged 40, was admitted into the Hospital of the Faculty of Medicine, of Strasburg, December 27, 1824. He had been affected with diabetes for three years previously, the cause of which was not known, but its progress was rapid, and "the patient was reduced to a state of marasmus. He had no pains in the region of the kidneys, nor could any lesion be discovered by external examination of the abdomen. The urine was copious and sweet—the appetite voracious—the thirst inextinguishable—tongue white and moist—pulse, temperature, and alvine excretions natural. The quantity of urine made each day amounted to upwards of 30 pints. Various remedies were used, without any impression being made on the complaint. The plan of Rollo was then tried. By the third day of this treatment, the quantity of urine was diminished to eight pints per diem, and a most abundant perspiration daily covered the surface. The qualities of the urine became nearly natural. But now the appetite failed, vomitings took place, constipation became obstinate, the thirst was still intense, febrile phenomena were developed, debility rapidly increased, and dyspnœa, with cough, were added to the other symptoms. The patient lingered out till the 10th March, 1825, seventy-two days from his entrance into the hospital, and then expired.

"*Dissection.*—There was nothing remarkable in the intestinal canal, except a few discoloured patches in the mucous membrane, which, in texture, was sound. There was also a very small ulceration of one of the mucous follicles in the lower portion of ileum, near the valve of the colon. No apparent change in the liver, spleen, pancreas, or kidneys. The vessels of these last were strongly injected. The ureters were dilated, and the urinary bladder was very capacious. Its coats were thickened, and their vessels and nerves strongly developed. In the chest, the morbid phenomena far exceeded the symptoms during life. There was hydrothorax in the left side—hepatization of the left lung, and, in its upper portion, a large cavernous excavation—universal adhesion of the right lung to the side, but its structure sound—hydro-pericardium—aneurismal dilatation of the pulmonary artery, two inches in diameter. There was no lesion in the brain or its membranes. The blood was every where fluid in the vessels, and mixed with air."—*Repertoire Generale, No.* 3.

20. *Congenital Enlargement of the Heart.*—"Mr. J. was born in 181[illegible], and was a sickly and feeble infant. When very young, he evinced a laborious state of breathing, and impeded functions of the heart and lungs. He spoke with volubility, but was often obliged to stop in the midst of his speeches, to take in breath. His lips were habitually of a blue colour, as well as the extremity of the nose, and the ends of the fingers. If he took any brisk exercise, he was soon panting for breath, and his heart in violent action. In this state he grew up—always in the doctor's hands—but never cured. It appears that he had several illnesses of an inflammatory character, for which he was bled, blistered, leeched, &c. It was observed that the *right* side of the chest was flattened in, and the *left* bulged out in the region of the heart. The left hypochondrium was also prominent. In short, it was evident that the functions of respiration and circulation were greatly disordered, but whether the structure of the heart and lungs was affected, was the question. At the age of puberty, all the symptoms above-mentioned became greatly exasperated, and in spite of various remedies, death put an end to the patient's sufferings.

"*Dissection.*—The left side of the chest seemed bulged out in the region of the heart, while the right side seemed depressed. The left arm was emaciated, the right was swelled. On opening the chest, they were astonished at the size of the heart. It occupied, in a great measure, both sides of the thorax! The pericardium contained about three ounces of water. The right auricle was prodigiously dilated, and its parietes attenuated. It contained a large quantity of coagulated blood, disposed in layers, and intermixed with fibrinous concretions. The pulmonary artery was dilated from its origin to its division into two branches, the right one of which was also dilated, while the left pulmonary a tery was diminished, so that it would scarcely admit a probe. The ductus arteriosus was open, as in the fœtus, so as to give free communication between the pulmonary artery and the aorta. The foramen ovale was closed. The right ventricle of the heart was dilated and attenuated. The left ventricle and auricle were also greatly enlarged, but their parietes were proportionally thickened. What lung was left occupied the right side of the chest, and was gorged with blood. The left lung was reduced to almost nothing, and evidently performed no respiratory function. There was some effusion in the abdomen, and the liver was large and gorged with blood. The vena portæ and the vena cava were varicose.

"The narrator of the case, (M. Cogoreux,) thinks, and with great probability, that the heart was originally too large, and, consequently, pressed on, and ultimately annihilated the left lung—hence the enlargement of the pulmonary artery of the right lung. We see, in this case, two opposite conditions in the two sides of the heart. The right chambers were in a state of passive—the left, of active aneurism."—*Medico-Chirurg. Review, Oct.* 1827.

---

21. *Case of Inflammation of the Arteries.* By Richard Bright, M. D.—"On the 22d of May, 1812, a robust middled-aged sailor had his leg amputated below the knee, on account of a fungous tumour situated on the foot, and connected with the fascia plantaris. He was very irritable during the operation. he was afterwards obliged to have a catheter passed, and his pulse rose so much during the following day, that he was bled and put upon the use of nitre in his drink; after this he went on tolerably well, till the 27th, when he became very feverish, with obvious affection of the chest; a decidedly jaundiced tinge of the skin; and a most remarkable tenderness over the whole body, so that when his wrist was touched to feel his pulse, he immediately uttered a cry of complaint, and the same when any other part was pressed. He died on the 29th.

"Sectio Cadaveris.—On examining the stump it was found to be sloughy, a sinus extending about two inches along the popliteal artery. The artery itself near the part, and the femoral artery half way up the thigh, were internally of as bright a red colour as if they had been covered with arterial blood. The same appearance was distributed in patches throughout the other arteries which we examined; the arch of the aorta, and the aorta itself, the iliac and the brachial arteries; the colour, however, was in none so intense as in the femoral artery. The heart was natural; the pericardium loaded with fat. The lungs considerably gorged with blood; there was a small bony concretion in one lung. The pleura on the right side was healthy. The pleura on the left side, and particularly the portion lining the ribs, inflamed and covered with a thin coating of cream-like fluid exactly resembling pus: there was above a pint of fluid, like a mixture of serum and pus, in the cavity. The intestines were distended with flatus. The liver was rather hard, and in colour and appearance resembled the boiled liver of an ox. The gall-bladder adhered to the neighbouring intestines. The spleen soft. The pancreas natural. The kidneys firm, and of a light colour. I may here remark that I have seen the appearance to which I have alluded, in the arteries, and likewise in the lining membrane of the heart itself, in one or two other cases where death has followed severe operations, and where the patients have been peculiarly irritable; but where I do not know, that external tenderness had been noticed."—*Bright's Reports.*

22. *Case of Metastasis of Rheumatism from the Synovial Membrane of the Extremities to the Serous Membrane of the Heart.* By Robert Adams, Esq.—"A girl aged six years, was attacked severely with rheumatism, which engaged successively the principal joints, and showed itself in most of the muscles. Active measures, consisting of venesection, purgatives, together with the use of mercurials and the warm bath, proved successful. Convalescence was however slow. About three months after recovery from this attack "she became again afflicted with pain, swelling and redness of the ancle and knee joints: the least

motion was insupportable. There was great heat of skin, more particularly of the affected articulations; and remarkable frequency and hardness of the pulse, a loaded tongue, anorexia, in short, a combination of symptoms denoting high inflammatory action; although these were actively met by the appropriate remedies, they changed but little until the fourth day, about which time the inflammation leaving its original seat, passed along the muscles, forming the parieties of the abdomen and thorax, and in the latter region very particularly fixed itself on the left side over the heart. Presently, in addition to the hardness and frequency of the pulse, it presented a remarkable tremulous vibratory feel, and the little patient exhibited more general distress. The horizontal position could not be borne, the limbs could now be tossed about without the slightest pain, the heat, redness, and swelling had disappeared from the joints; there was, however, neither mitigation of pain, nor of tenderness on pressure of the abdominal muscles, nor relief from the deep distressing anxiety and pain of the heart, to which the little patient usually pointed when asked about her sufferings. The breathing was hurried and distressed; not simply as in ordinary fever, but there was a corresponding anxiety of countenance; and she continually maintained the sitting posture, the head inclined forwards, and required support of the hand of her attendant, such was the debility. She had, at this period, some cough, and expectorated with difficulty a viscid mucus. She died on the 18th day of her illness, having preserved her mental faculties in a perfect state throughout. The same remedies were used as in the former attack.

" *Dissection.*—The body was remarkably pale, and had rather a bloated appearance. The abdomen, particularly examined, exhibited no trace of inflammation. The lungs were perfectly healthy; but the pericardium was much enlarged, and evidently distended by a fluid. On opening this bag, a quantity of sero-purulent fluid, with flakes of lymph floating in it, poured out. The surface of the heart and corresponding part of the pericardium were coated with lymph, and presented the usual appearances of acute pericarditis."—*Dub. Hosp. Reports, Vol. IV.*

---

23. *Case in which Inflammation was propagated from the Surface to the Heart.* By Robert Adams, Esq.—The external lamina of the pericardium being a fibrous membrane, does not readily take on inflammatory action, and therefore acts as a barrier to the extension of inflammation to its internal or serous lamina from the pleura. Nevertheless a combination of the pericarditis and pleuritis does occur, and Mr. Adams has seen inflammation disregarding all difference of structure, pass from the surface to the heart. He has seen a well marked example of this in the case of a man who received an external injury of the chest: to the ordinary consequences of the primary injury succeeded the acute symptoms of pericarditis, which terminated in death. On dissection were exhibited the effects of inflammation of the different textures from the skin to the serous membrane of the heart, which was extensively coated with lymph; the pleura and neighbouring portion of the left lung had been also implicated.—*Dublin Hospital Reports, Vol. IV.*

---

24. *Chorea.*—M. Lisfranc presented to the Royal Academy of Medicine at their sitting of the 16th of August last, a lady whom he had cured of chorea by general bleedings, and repeated application of leeches to the upper part of the spine: he had been induced to try this mode of treatment, because M. Serres had assured him that he almost always found the tubercula quadrigemina in a state of inflammation in the bodies of those persons who died of chorea. M. Serres, who was present, stated that in four cases of chorea he found the tubercula quadrigemina altered; in one case a fatty tumour was developed on them: in another, there were marks of considerable excitement, with bloody effusion at the base of these bodies. In the two last cases, the whole substance of the corpora quadrigemina was inflamed, and the inflammation extended to the roof of the fourth venticle. The symptoms appeared to him to have some

relation with an injury of this part of the brain. M. Serres tried experiments on living animals, and found that those animals in which this part of the brain was injured, had motions similar to those observed in cases of chorea. M. Rolando has also perceived this fact in his experiments. M. Serres was not, however, willing to conclude that in every case of chorea the tubercula quadrigemina are injured: he had seen several in which no injury in the brain could be discovered. As persons afflicted with this disease generally experience great pain at the back part of the head, above the region of the neck; he had been induced to apply remedies to this spot, and which had often cured the complaint in its acute state: but when it becomes chronic, the frequent application of leeches, in the neighbourhood of the supposed seat of the disease, prove of no benefit.—*Archives Générales de Médecine, Sept.* 1827.

---

25. *Rupture of the Heart.*—The muscular substance of the heart, constituting the whole thickness of the ventricles, sometimes gives way at a particular place, and death usually follows instantaneously. The rupture, we believe, always occurs in one of the ventricles, and most commonly in the left, we do not recollect having met with any case recorded in which the auricles were ruptured. Mr. Adams records in the fourth volume of the *Dublin Hospital Reports*, a case, communicated to him by Mr. Colles, of a gentleman who had marked apoplectic symptoms, for which he was bled, and had an issue inserted in his arm; about a week afterwards, whilst in the water closet, he suddenly fell down dead. On dissection, the contents of the cranium were found sound, the pericardium was distended with blood, the whole surface of the heart was coated with fat, on the anterior and upper part of the left ventricle there was a large bloody spot, immediately beneath which there was a laceration of the left ventricle, [illegible] which a large bougie could be readily passed, through this the blood had escaped, which accounted for the sudden death of the gentleman; the substance of the organ was soft and flabby; there was no disease of the valves or vessels.

---

26. *Case of Active Enlargement of the Heart with Rupture of the Cordæ Tendineæ of the Mitral Valve.*—The cordæ tendinea, which connect the auriculo-ventricular valves to the walls of the ventricles, are sometimes torn, and the accident is soon followed by a train of the most distressing symptoms. The following interesting case is related by Mr. ADAMS in the fourth volume of the *Dublin Hospital Reports*. The case was communicated to him by Dr. Cheyne.

In the beginning of September, a musician, 34 years of age, of a very robust frame, sanguine temperament, and corpulent habit, being at Limerick, where he belonged to the orchestra, and leading a life of irregularity and intemperance, exposed to heats and colds, was seized with a most acute pain in the left side of the thorax, precisely in the region of the heart; at one time it was so acute as to render him nearly frantic; five or six persons could scarcely hold him down in bed: he had a dry cough, his breathing was oppressed, from which oppression he had most relief when leaning forward inclined to the left side, in which position he usually sat. He recovered partially and went to Cork, the pain continuing in a degree, with some *stuffing*, as he called it, and cough; towards the end of September, he went to Cove with the intention of returning by sea to Dublin. He there lived on board a coasting vessel for a fortnight waiting in vain for a favourable wind, much exposed to cold, and daily becoming worse; at last, impatient of the delay, he walked back to Cork to return in the mail, and it was after this walk that he first observed an œdematous swelling of his ancles, which gradually extended to his thighs.

On the 12th of October, 1813, this poor man had been free from pain for several days. The stroke of the heart was indistinct, tremulous, and appeared to extend over the whole of the left side of the chest, from above the clavicle to below the scrobiculus cordis; at no one part between these points was the stroke more distinct than at another. His pulse was 148, unequal, irregular and indistinct; his complexion was of a leaden colour, his countenance bloated, his eye staring and wild. His recollection was becoming indistinct; unable to lie down, he passed the night in his chair. His appetite was not much impaired, but he was flatulent and costive; his tongue was furred, its edges were livid. His urine was scanty, high-coloured and lateritious.

"A walk of not more than a few hundred yards wonderfully added to the disturbance of the vital functions. While such an exertion increased the dyspnœa, it gave strength and distinctness to the stroke of the artery. His abdomen was swelled, and evidently contained a fluid. He died without a struggle on the night of the 15th of October.

"The following were the appearances on the dissection, which the surgeon-general, who had humanely visited this man, permitted me to attend. On cutting through the cartilages of the ribs, the fluid, which was in immense quantity, spouted up to some height—in the right cavity of the thorax there were several quarts of fluid. There were no adhesions between the pleuræ, the lungs were sound. The pericardium contained a considerable quantity of fluid. The heart was so large that it resembled the heart of a bullock, the parietes of the left ventricle were thickened, its internal surface much inflamed, various irregular excrescences grew from the mitral valves and semilunar valves of the aorta, and the cordæ tendineæ, which connect the larger portion of the mitral valve to the walls of the left ventricle, were torn off just at the point of their insertion into the edge of the valve; at this point there were also some of the above-mentioned excrescences; four of the broken cordæ tendinæ hung loose into the ventricle.

---

27. *On the distinction between Rheumatic Inflammation of the Heart and Inflammation of the Serous Membrane of the Pericardium.* By ROBERT ADAMS, Esq.—The distinction between rheumatism of the heart and of its serous membrane, has not been sufficiently insisted upon, and as it is a matter of consequence in practice to be able to distinguish them, we copy from Mr. Adams' excellent paper on the diseases of the heart, in the fourth volume of the *Dublin Hospital Reports*, the diagnostic characters of these two affections, which he has laid down with great accuracy and precision.

"In the one case the organ is simply, and often but transiently affected, just as any other muscle is, the person has perhaps been affected with rheumatic pains in the loins, with but little fever; these suddenly leaving this region run to the diaphragm, and cause a temporary affection of the breathing, with what the patient calls spasms in the chest. The countenance undergoes sudden changes: there are at such moments strong beats of the heart, and intermissions of the pulse sensible to the patient; and in females I have sometimes seen such attacks end in an hysteric paroxysm, and all symptoms subside when the lumbar pains returned. In such cases, the tongue is somewhat foul, the skin is frequently relaxed by profuse perspiration, and the urine is remarkably turbid; but the pulse has neither the frequency, hardness, nor peculiar vibratory feel that it has in the other, and more dangerous case: the countenance does not betray that anxiety, or, as it is denominated by some authors, that anguish which it almost uniformly expresses when the membranes of the heart are affected with acute inflammation, from whatsoever cause proceeding. Although simple rheumatism of the muscular structure of the heart may occasionally pass on to carditis, or to an inflammatory affection of the serous membrane of the heart, there cannot be a doubt that the two cases are very distinct from each other, and require treatment so different as to make it highly important for the practitioner to be aware of the risk of mistaking the comparatively simple case of rheumatism of the heart, for the far more urgent and dangerous one of rheumatic inflammation of its serous membrane. The latter disease I have usually seen in children, and persons about, and under the age of puberty, in whom, metastasis seems much more liable to occur, than in those more advanced in life; and the sudden translation of the rheumatic inflammation to the heart has usually occurred where the synovial system of the extremities was the original seat of the disease: when the muscles have been affected with acute rheumatism, metastasis to the heart has not, to my knowledge, been frequent, although I have seen the diaphragm affected by it in such a manner as to excite apprehensions for a time, that the former more important organ was implicated. There seems to be a greater disposition in the acute inflammation to pass from the synovial membranes to the serous, than to any other tissues, which is not so much to be wondered at, when their great similarity of structure, appearances, and functions, is considered.

---

28. *Asphyxia as a cause of Death in Small-Pox.*—Dr. Rennes, physician to the military hospital of Strasbourg, is of opinion, that in most patients who fall victims to this disease from the tenth to the fifteenth day, perish from asphyxia rather than inflammation of the respiratory organs. To corroborate his assertion, Dr. R. details the results of four cases of confluent small-pox, in which there was found on dissection that the nostrils, pharynx, and sometimes the larynx and trachea, were covered with thick layers of a tenacious mucus—to this morbid alteration were also joined all those which generally accompany asphyxia.—*Journal des Progrès, Vol. V.*

---

29. *Fracture of the Sternum by Muscular Action.*—M. Chaussier reported to the Royal Academy of Sciences, a case of transverse fracture of the sternum in a woman aged twenty-five years; produced during labour, by the simultaneous contraction of the sterno-pubic and sterno-mastoid muscles. The patient died at the end of fifteen days. M. C. has seen but two similar cases during the twenty years that he has been physician to the Maternité.—*Journal des Progrès, Vol., IV.*

---

30. *On the Accidental Heterologue Tissues.* By Aug. Bouilland, D. M. P.—The accidental tissues, or those which differ in their organization from that of the primitive structures, have been divided into two sections. 1st. Those which have analogues among the natural tissues; and 2d. Those which have no analogues, and which never exist but as a consequence of a morbid state. Dr. Boulland has published in the fourth volume of the *Journal des Progrès*, an interesting monograph of the accidental heterologue tissues, as they have been called, viz. tubercles, schirrous and carcinoma, melanosis, and cirrhose.

After detailing all that is known in relation to them, he concludes that in the present state of our science, the generic name of accidental heterologue tissues should not be used, unless we wish to perpetuate discussions and countenance the false ideas which result from its employment. In fact, some of these alterations, he says, consist of a truly new formation, but which do not exhibit any of the characters of an organic tissue, as the substance of tubercles, and of melanosis; others also present an unorganized newly-formed matter, but so intermingled with natural tissues, whose nutrition has been modified, that the term new tissues would infallibly lead to error, such are schirrous and carcinoma; lastly cirrhose is but a modification of nutrition in the normal organic elements, without any accidental formation.

If however we wish to preserve the term *heterologue morbid productions*, M. B. thinks that we can comprehend under this title only tuberculous matter, the matter of carcinoma, (encéphaloide of Laennec,) and the non-organized matter of schirrous, observing that there is not comprehended by these two last the whole of cancerous tumours, the organized portions of which are not a new production. Melanosis must be withdrawn from this class, as it has an analogue in the normal pigmentum nigrum, and must be united to a class of *morbid productions with analogues.* On the other hand, M. B. is of opinion that we must reunite to the heterologue productions, pus and its varieties, the matters similar to fat, to starch, and to honey, &c. stony concretions, false membranes, and hydatids.

As to the mode of production of these different alterations, they consist, ac cording to M. B. always in alterations of nutrition or secretion, which produce them separately or simultaneously. In some cases it must be admitted that these derangements of functions are the result of inflammations, in others we can only observe fluxion, or active sanguineous congestion; finally, in some we are obliged to admit different obscure hypotheses, all more or less probable, but which wait their confirmation from time and experience. Numerous researches are still required to place our knowledge of these tissues on a permanent and solid foundation.—*Ibid.*

MATERIA MEDICA.

31. *Proto-Nitrate of Mercury.*—Dr. **Sundelin** of Berlin, considering the inconveniences attending the use of the deuto-nitrate of mercury, owing to the caustic form of the deutoxide, prepares a nitrate of mercury in the following manner; it contains the protoxide only. Take of pure metallic mercury, pure nitric acid, simple distilled water, of each one ounce; let them be placed in a cold situation, in an uncovered glass vessel, until crystals are formed; wash the crystals in distilled water, and keep them in a glass vessel well covered. Dr. S. at first gives one-sixteenth to one-eighth of a grain of this salt, and increases the dose according to circumstances, to a grain twice a day; he prefers it in the form of pills, which he makes in the following manner. Take six grains of the crystallized nitro-oxide of mercury, dissolve them in a little water; add to the distilled solution liquorice powder and mallow root, of each one drachm; let the mass be made into ninety pills. Two pills are to be given every day, and the number gradually increased to sixteen. "The intestinal canal bears this form much better than the sublimate, and it may be conveniently given to very irritable patients. It takes, however, a greater length of time to produce salivation. It favours the secretion of urine much more than that from the skin. It is very beneficial in secondary ulcers of the palate, exanthematous eruptions, and ulcerations of the skin produced by syphilis, diseases of the periosteum and the bones. The treatment must be accompanied by a spare diet, mild baths, mild temperature, and the use of the decoction of sarsaparilla."

32. *On the Medicinal Properties of Madar.* By **Wm. Cumin, M. D.**—Madar has been long used by the natives of Hindostan, in elephantiasis and other cutaneous diseases. It is of a whitish colour when in powder; its odour is faint, and somewhat resembles opium, and its taste approaches to that of the common horse-bean. Mr. Cumin has administered it to five patients in the Lock Hospital, in the form of powder, in the dose of from three to five grains two or three times a day. In all the cases it produced nausea, and sometimes vomiting; and these symptoms occurred in some instances very soon after the powder was swallowed, but more generally not till after an interval of an hour or more. In the five cases in which Mr. C. used the madar, in two it produced no benefit, in two it seemed to contribute to a successful result, and in one he is inclined to ascribe to it the completion of the cure. Mr. C. considers it to be an alterative of a highly concentrated character.—*Ed. Med. and Surg. Journ. October.* 1827.

33. *On the Bichromate of Potass.* By **Wm. Cumin, M. D.**—"The first effect of the habitual application of the solution of bichromate to the skin is to produce an eruption of papulæ. These, after a little time, become pustular, and, at length, provided the exposure be continued, deep sloughs form under the pustules. The sloughs are of a peculiarly penetrating character; an instance has even occurred in which a complete perforation through the muscular substance of the hand has in this way been produced. Great differences exist among the individuals subjected to the action of the solution; some suffering

very slightly, others severely, so much so, indeed, that swelling of the face and inflammation of the eyes have, I am assured, been produced in addition to the symptoms above described. To avoid the injurious consequences of immersing the hands and arms in the solution of bichromate, an apparatus has been constructed, by which the cloth is passed through the liquid dye without requiring more than the tips of the fingers to be dipped into it. Even this slight exposure, and the handling of the moist cloth after it has been thrown off from the machine, cause the eruption to make its appearance in susceptible individuals; and it would no doubt proceed on through its several stages, were they not relieved for a time from the duty. Other liquids used in dying and calico printing produce irritating and injurious effects, thus the solution of chloride of lime causes softening, and sometimes destruction of the nails with excoriation, but nothing resembling the effects of bichromate of potass, the action of which appears to be altogether peculiar.

"Soon after I succeeded Dr. Brown in the charge of the Lock Hospital, I began to prescribe a saturated solution of bichromate of potass, as an application to tubercular elevations, excrescences, and warts. In these cases, the new growth has sometimes been removed by absorption without any slough; but where a slough has formed, it has always served to expedite the cure, and in no instance have I observed it to be followed by a deep or unmanageable ulceration. In a case of warts, more extensive and formidable than any I had before met with, or seen delineated, which I treated last winter, the solution of bichromate was the only remedy which acted effectually, without causing such intolerable pain as to preclude the continuance of its application.

"The bichromate of potass, although decidedly poisonous, does not appear to be very active in its operation. It inflames the stomach, both when introduced into that organ, and when injected in a considerable dose into the veins. Under these circumstances it would require some degree of medical hardihood to venture on its employment as an internal remedy; but it is probable, that if cautiously used, it may be found, like arsenic, to possess considerable tonic virtues."—*Ibid.*

34. *Styptics.*—Sir ASTLEY COOPER says "in bleeding from small vessels or wounded surfaces, very fine wool laid down and confined by bandage upon the part is one of the best styptics. The wool may be dipped in flour to add to its efficacy.

"There is an old prescription of a styptic in St. Thomas's Hospital, which I have seen useful. ℞. Pulv. catechu—pulv. bol. armen. āā ℥ij.—alum. us. ʒj.—tinct. opii. q. s. at fiat pasta.

"This will stop the troublesome bleeding from leech-bites."—*Lectures on Surgery, Vol. III.*

35. *Application of Medicines by the Skin.*—"Dr. MARTIN, Jun. has been lately occupied in experimenting on what the French call 'la méthode endermique' of exhibiting medicines; and in the number of the *Revue Medicale* for September, he has published a memoir on the exhibition of the sulphate of quinine by the skin in intermittent fevers. He gives six cases in which the remedy was thus administered, in all of which, (except one, in which it was found necessary to give the medicine internally,) it proved successful. Dr. M considers the question of the absorbing powers of the skin as set at rest by the experiments of Bichat, Pinel, Chaussier, Alibert, and Dumeril. But allowing a doubt to exist as to the power of absorbing where substances are simply applied to the skin, it does not apply here, as in this method the epidermis is previously removed by a blister. 'The skin deprived of its epidermis,' says Dr. Martin, 'possesses a power of absorbing so great, and so manifest, that it admits not of doubt. Who does not know the terrible effects of rabies, and the venom of serpents thus introduced into the body? Dr. Lesieurs is the first who proposed this function of the skin as a new method of giving medicines

and wished to assure myself of the results of a method which appeared likely to be so useful.' The method he uses will be best shown by transcribing one of his cases.

“Clare Bels, ætat thirty-four, was seized in the beginning of September, 1826, with remittent fever, which was stopped in a month by means of the sulphate of quina, given internally. Fifteen days after, a quotidian intermittent showed itself. The fever, which at first was slight, becoming severe, she entered the Hôtel Dieu, December 18th, with the following symptoms:—Face flushed, heat of skin, slight moisture; pulse strong, bounding, and frequent; tongue red and dry; frequent cough; pain in the chest, increased on coughing; slight head-ache; the other functions natural. She was bled to eight ounces, and ordered pectoral medicine, with low diet.

19th. A return of fever. A blister was applied to the arm.

20th. Perfectly calm. The blister rose well. Six grains of sulphate of quina in powder was sprinkled on the blister, and the wound covered with beet-leaves. At noon the paroxysm came on as before. Blister very painful.

21st.—Great pain in the arm, which is swollen and red. Six grains more of the quina were put on the wound. No fever to-day.—In the evening, great pain from the wound, to which a poultice of linseed-meal was applied.

22d.—A bad night; much suffering; no fever during the day. Continue the cataplasm.

“23d.—A quiet night; scarcely any pain, and no stiffness of the arms. No return of fever.

“24th.—The patient is doing well. Slight pain from the blistered part; good suppuration. No return of fever.

“26th.—The wound is nearly healed; scarcely any pain; no fever.

“31st.—The patient has quite recovered, and has been dismissed cured.

“Dr. M. soon observed that, by mixing the quina with the cerate with which the blister was dressed, the violent effects of the salt on the wound were moderated, and its absorption not at all retarded.

“In enumerating the advantages of this mode of administering the quina, Dr. M remarks that patients who cannot or will not take the quantity of medicine necessary for their cure, may in this way be brought under its influence, without their being aware of it. In children, also, where it is sometimes nearly impossible to give medicine internally, this mode may be advantageous. In some cases of intermittent fever, where congestions or inflammation of the stomach or intestines prevent the internal exhibition of quina, this new method would answer. Sometimes also the medicine runs off immediately by the bowels, and in this way the first doses are entirely lost: this is avoided in giving it through the medium of the skin. Another advantage pointed out is, that there is no occasion to wait for the remission of the paroxysm, but it may be applied at any period of the fever. It appears also that, by being carried into the blood without alteration much smaller doses of it will stop the course of the disease than when given by the stomach. The quantity of the sulphate necessary to stop the fever, when taken internally, is from six to twelve grains; when applied to the skin, about four grains will suffice in mild cases.

“The only objection to this plan appears to be, that a blister becomes necessary.

“Dr. M. draws the following conclusions:—1st. That the sulphate of quina, applied to the dermis, denuded by means of a blister, stops the progress of intermittent fever, when nothing is opposed to its absorption.

“2d. This salt operates in these diseases by a general and specific, and not by revulsive or any local action.

“3d. The absorption is very rapid.

“4th. The salt thus absorbed suffices in smaller doses than when given by the stomach

“5th The sulphate applied to the skin in powder causes great inflammation.

"6th. The sulphate mixed with cerate causes scarcely any pain or inflammation.

"7th. This medicine, valuable for administering the quina to certain patients in simple intermittents, may become a great resource in certain cases of dangerous and obstinate fevers."—*Lond Med. and Phys. Journ. November*, 1827

36. *Sulphate of Quinine.*—M. **Bland**, Physician to the Hospital of Beaucaire, observed in an epidemic intermittent fever which prevailed in the summer of 1825, that the sulphate of quinine when given to the extent of twenty-four grains a day, produced on the second or third day, in many individuals, a considerable degree of deafness. He observed this most frequently in tertians in individuals who were slender and of a nervous temperament. This symptom was attended with head-ache, it disappeared spontaneously on the eighth or twelfth day.—*Journal des Progeès, Vol. V.*

PRACTICE OF MEDICINE.

37. *Cases of Inflammation of the Tongue.*—In the Periscope of our last number, we gave two cases of this rare and alarming disease; the following cases will be considered a useful addition to our knowledge of the affection, and are especially interesting as they yielded to milder treatment than was employed in those previously noticed. *Case I.*—"A stout man, aged 68 years, by trade a mason, was attacked with pain in the throat, redness of the fauces, and swelling of the tonsils, but without much fever. These symptoms were considerably diminished by leeches applied to the angles of the jaws, emollient gargles, and a mustard pediluvium. But in consequence of exposure to cold he was soon afterwards seized during the night with a tormenting sense of tightness at the root of the tongue, difficulty in speaking and swallowing, and ere long with swelling in the tongue and impending suffocation. When his physician saw him in the morning he could not speak, the pulse was very quick and feeble, the countenance pale and anxious, and the tongue filled the whole cavity of the mouth. On account of the firmness with which the tongue was pressed against the roof of the mouth, and the patient's inability to separate the jaws to half the usual distance, it was found impossible to make on its upper surface more than two short incisions, from which very little blood flowed. An incision was therefore made with the lancet into each sublingual vein; and when the blood ceased to flow, fresh incisions were made, and the discharge promoted by injecting warm water into the mouth. In the course of two hours the swelling was so much diminished that the man was able to rinse the mouth with warm milk, after which a blister was applied to the neck, and a purgative enema administered. A rapid amendment then took place, so that before the close of the day he could speak intelligibly; and his recovery went on steadily. *Case II.*—Another case was of a less acute form than the former. It had existed eight days before it came under treatment. The patient had little pain or fever, but swallowed with great difficulty, and could breathe only in the upright posture. The case was cured by blisters, gargles, and the mustard pediluvium.—*Horn's Archiv. für Medizinische Erfahrung.*

38. *Employment of Iodine in the Treatment of Cynanche Parotidæa.* By Dr. **Neumann**.—"Dr. Neumann, of Neustadtel in Silesia, has employed the hydriodate of potass with great success as an external application in cynanche parotidœa, which prevailed epidemically in Neustadtel in June, 1823. Among the poorer orders who were treated in the ordinary way, the disease was very tedious, and generally ended in suppuration. Among the better ranks, the treatment consisted in the exhibition of an emetic, and the application over the tumour of a plaster composed of eight parts of mercurial ointment and one pa

of the hydriodate of potass; and the ordinary effect was a radical cure within three or four days. Dr. Neumann adds, that he never observed in the cases so treated any metastasis to other organs; and he is disposed to impute this to the formation of an erythematic eruption, which always appeared on the first or second day, and remained from eight to twelve days.—The author has annexed a very instructive case illustrating the deleterious effects of this drug when given in too great quantity. It was given to cure enlargement of the cervical glands, which it accomplished very effectually; but the patient was at the same time attacked with violent palpitation in the chest and abdomen, which was relieved only by the horizontal posture, then with great weakness, and tendency to faint, and subsequently with emaciation and general dropsy. The palpitation was so violent and constant as at first to appear connected with organic derangement; but the relief obtained from the horizontal posture, the absence of cough and dyspnœa before the dropsy commenced, and the regularity of the pulse, led Dr. Neumann to conceive that the disorder of the heart was merely functional. Accordingly, although the patient had been ill for a twelvemonth, the irregularity of the heart's action was soon subdued by the employment of digitalis and cherry-laurel-water; and the tendency to faint and anxiety at the same time disappeared. The dropsy, however, continued much longer; but at length it slowly receded under the use of the *Arnica* combined with soap."—*Rust's Magazin für die Gesammte Heilkunde*, 1826.

39. *Case of Cancer of the Breast cured by Antiphlogistic Treatment.* By **Prosper Gassaud.**—"Madame Dillon, residing at Toulouse, aged 49, of a sanguineo-nervous temperament, the mother of several children, had enjoyed good health up to her forty-seventh year. She then began to be the subject of retarded menstruation, and to be much affected with pains in the abdomen. In pursuance of the advice of her physicians, she took several purgative draughts, which procured her some relief, without, however, restoring her health, which still continued in a tottering state. In the month of October, 1821, after having given herself a slight blow on the left breast, she perceived a tumour there, about the size of a nut. At first this excited but little attention; but as it gradually increased, and in time began to be painful, she sought the opinion of a surgeon, who recommended a resolving plaster to be applied to the part, and made her take daily a *white* powder.

"During a whole year the patient derived no benefit; on the contrary, the pains increased; sleep entirely left her, the tumour made rapid progress, and at length an abscess was formed towards the depending part.

"Being at this epoch physician to the medical charity of the district in which this poor woman resided, I saw her, for the first time, on the 6th October, 1822, and found her in the following state: rather unusually thin; her face pale; contracted, and expressive of suffering; skin hot, and unusually so towards evening; hard and frequent pulse; habitual and obstinate constipation; the left breast the seat of three unequal and agglomerated tumours, the largest resembling a hen's egg, which was at the same time in a state of ulceration. The skin in the neighbourhood of the local affection was corrugated, and the folds were of a brownish hue; the edges of the ulceration hard, unequal, swollen and highly sensible; the patient declaring that the sensation was that of red hot coals. The bottom of the sore was full of fleshy, dull white granulations, and discharged a fœtid, acrid, serous, and bloody fluid. Digestion was difficult; sleep a stranger; nutrition imperfect; and the mind greatly depressed.

"My first attempt was to inspire my interesting patient with confidence, from the hope afforded of relief by means of the new doctrine, and the cures that had already been effected, in several similar cases, at Paris. She promised implicitly to follow my advice.

"The first day, I dismissed the nutritive food and generous wine, which she had been using in order to keep up her strength, confining her to a milk and vegetable diet, and restricting her, in point of drink, to mucilaginous and sim ply sweetened water. Thirty leeches were applied in the evening, as near the seat of the evil as was practicable; upon their removal, not only their punctures but the whole ulcerated surface was covered with a linseed-meal poultice moistened with a decoction of leaves of nightshade and poppy-heads.

"On the morrow there was a little amendment, although she felt herself very weak: the leeches had bled well, and I ordered this depletion to be repeated three times in the course of twenty-four hours. The patient had some repose, and the sore put on a better aspect. In four days more the leeches were repeated, to the amount of twenty, but less blood was obtained; and this time the patient was not so much weakened, while the pain was lessened.

"By the 12th, the stomach, which had been over-excited by the wine and previous regimen, began to be in a better state, the tongue had nearly regained its natural aspect, being more moist and less red. Hope likewise seemed to be playing a useful part; the countenance began to brighten, the spirits mounted, and she declared that she had enjoyed two hours tranquil sleep during the preceding night—a thing to which she had been a stranger during six months. *Contin. regimen et cataplasmata.*

"18th. The ulcer presents an entirely new aspect; its edges are less hard and more united; the veins surrounding the body of the mamma are diminished, the bottom of the sore has assumed a healthier colour; the discharge is less bloody and of better consistence; *fifteen leeches bled well,* and, according to the patient's account, entirely removed the pain.

"24th. The ulcer contracts; the edges are subsiding, and present a vermilion hue: I now commenced the application all round of strips of fine linen, smeared with recently made *opiated* cerate; while, at the same time, the whole tumour was covered with the application already mentioned.

"30th. A remarkable improvement; the glands in the neighbourhood of the ulceration, which were of unusual sensibility, have lost about a third of their bulk, and give little or no uneasiness to the patient. Twelve leeches were this day applied; but in other respects there was no alteration of treatment. The first days of November being cold, I advised Mad. Dillon to keep herself warm, and on no account to expose herself to damp. The digestive organs being in a favourable state, I judged it proper to try *revulsion*. Accordingly, two of the following pills were ordered every morning:—℞. Saponis ʒj., aloës hydrarg. submur. (calomel,) āā. ʒss.; syrupi rhamni, q. s. ad faciendum pil. no. lxij.

"Every ten days a small number of leeches was applied, and after every application of this nature the state of the breast was manifestly improved. The appetite improved so much as to prompt the patient to solicit for indulgence in the article of diet, and she was allowed a small portion of fish.

"Towards the close of November the pain was entirely gone; respiration, which had been hitherto oppressed, became free; instead of a foul ulcer, the mamma exhibited a healthy sore, approaching rapidly to cicatrization; the neighbouring tumours subsided, and scarcely equalled a pea in point of size. The temper of the patient, from being morose and unsteady, became remarkably cheerful; her physiognomy indicated the entire removal of suffering; the nutrient and locomotive functions were executed with ease; and, in short, the general state of affairs was good.

"About the beginning of November, the purgative plan having excited some slight cholic, I suspended its operation *pro temporè.*

"12th. Fifteen leeches; and on the 13th the pills resumed, in smaller doses. During the month the wound was regularly dressed, and cataplasms were daily applied.

"January 1st, 1823. One entire and undisturbed night's rest; functions entirely natural; ulcer ready to heal up; mammary glands, at first so large, diminished to almost their natural state; *cataplasms discontinued; dressings with saturnine cerate; more animal food; wine and water.* The patient returns to her domestic occupations. At the end of the month the ulcer was entirely healed

And from that time I look upon it that Mad. Dillon was the subject of a radical cure.

"From this period more than four years have elapsed, and nothing whatever has occurred to disturb my patient's health."—*Nouv. Bibl. Méd. June*, 1827.

40. *Phagedenic Ulceration of the Gums in Children.*—"We have received the following note from Mr. Bush, of Frome.

"In the Journal for June, Mr. Thomson has given a paper on a species of phagedenic ulceration of the mouth, called 'Gangrenous Excoriation, or Erosion,' in which he recommends, and perhaps with much propriety, the Balsam of Peru. The disease is well known to practitioners, especially those resident in crowded manufacturing towns, as attacking the children of the lower orders, and more particularly such as are deficiently supplied with nutritious food, and have not the advantages of well-ventilated rooms, regular personal ablution, and frequent changes of clean linen. I have seen this disease to supervene on typhus, scarlatina, rubeola and variola, and at all periods from one to ten years. It takes place in children of delicate constitutions, such as are of scrofulous diathesis. Having witnessed a great deal of difficulty in curing these cases by bark, wine, and the ordinary routine of practice, I was induced (some ten or fourteen years ago,) to give the carbon, and with the most happy results. Indeed, where the plan has been tried early, I do not remember an unsuccessful instance. The following is the formula I have commonly used; but, when the bowels have been too relaxed, I have formed the linctus with syrup. pap. alb.—℞ Carbonis ligni, mellis, āā. ℥j. M. sumatur cochleare minimum sæpe, vel quartâ quâque horâ. This serves as a local and constitutional remedy. I have used it very extensively in cases of ill-conditioned ulcers, accompanied by constitutional debility, both internally and as a local application, with marked advantage.

"It is worthy of observation, that animal and vegetable oils, sugar, gum, starch, and other substances found to contain great quantities of carbon, are those which by experience are found to recruit and restore most efficiently debilitated constitutions."—*Lond. Med. and Phys. Journ. October*, 1827.

41. *Treatment of Acute Rheumatism by Tight Bandaging.*—M. Velpeau, some time ago published an account of his treatment of the several varieties of diffuse cellular inflammation by graduated pressure, applied by means of the roller bandage. Dr. Varlez surgeon in chief of the military hospital of Brussels, has treated acute rheumatism of the joints with great success, by the same application. He relates in the *Archives Générale de Médecine*, for June, '27, several cases in which the bandage was applied in the acutest form and stage of the disease, when the redness and swelling were great, the throbbing pain violent, and the general fever high, and in which the treatment was crowned with speedy and complete success. In almost every instance the application of the bandage is followed at first, and for two or three hours, with increase of the pain, so that the patient can with difficulty be persuaded to persevere, but soon afterwards the pain begins to abate, and the abatement then advances with rapidity. Dr. Varlez generally moistened the bandages with an emollient decoction, which, besides having the ordinary effect of emollients, were useful by increasing the pressure."

42. *Prussiate of Iron in Epilepsy.*—The Chevalier Kirkhoff, of Antwerp, has employed for a long time with success, the prussiate of iron in the treatment of epilepsy, when it does not depend upon organic lesion. He administers the remedy, at the commencement, in very small doses, beginning with half a grain a day for an adult, and gradually augmenting it to three, four, five, or six grains, and often more. When the patient is of a sanguineous constitution, the use of this remedy is preceded by a large bleeding, and is accompanied by the application of some leeches to the temples, repeated from time to

time. M. K. recommends also the following regimen, considerable exercise but without inducing fatigue; to avoid exposure to vicissitudes of temperature, dampness, or great heat; to shun every thing that can produce strong impressions upon the nervous system, as venereal pleasures, strong emotions, as well agreeable as disagreeble. When the patient has a feeble constitution, he puts him upon a light, nutritive, and easily digestible diet, preferring animal food, as veal broth, poultry, milk, eggs, &c. He recommends the farinacea also as accessory articles of diet. Coffee, tea, liquors, finally every thing that can over excite is forbidden. It is necessary that the patient should eat little at a time and often, in order to avoid producing an irritation of the stomach, which might react upon the brain, the principal seat of epilepsy. As it is necessary to pay the greatest attention to prevent all irritation of the brain, both direct and indirect, it is also necessary to keep the bowels open by enemata. But when the patient is very robust, and of a sanguineous constitution, M. K. prescribes a strict antiphlogistic diet and vegetable food.—*Journal des Progrès, Vol. IV.*

---

43. *Chloride of Soda in Tetter.*—M. Lisfranc has lately used, with success in cases of obstinate tetters, a lotion composed of a solution of the chloride of soda. He first subdues the symptoms of inflammation and then uses the lotion.

---

44. *Muriate of Iron in Softening of the Stomach.*—"In the Heidelberg Klin. Annalen, Dr. de Pommer has related some cases of supposed softening of the stomach in infants, a disease to which the attention of the profession has recently been called, (see the paper of Dr. Gairdner in the Medico-Chirurgical Transactions of Edinburgh, &c.) in which he administered the muriate of iron with apparent advantage. We say supposed cases, because the actual condition of the stomach in cases terminating favourably must remain matter of conjecture and all that we can venture to affirm is, that the symptoms of the children who survived were very similar to those in the children who perished, and in whom the coats of the stomach were found softened. In the cases which did well under the muriate of iron, there was constant vomiting, with frequent, loose, fetid stools; moaning, and anxiety of countenance but no tension of the abdomen or tenderness on pressure. The following is the prescription recommended:— ℞. Rad. Alth. ℥ij. Coq. c. aq. fontan. q. s.; Colat. ℥ij., adde Pulv. Gum. Arab. ʒij.; Ferri Muriat. ℈iss., Syrup. Alth. ʒvj. M. S. Of this two tea-spoonfuls are given every hour, care being taken to shake the mixture each time."—*Lond. Med. and Phys. Journ. Nov.* 1827.

---

45. *Case of Dysentery cured by Ipecacuanha.* By R. Bright, M. D.—"J. C. aet. 60, was admitted, under my care, into Guy's Hospital, January 25th, 1827, having for the last three or four weeks had frequent dejections containing blood and mucus, and passed with much pain. Habeat pulv. Ipecac. gr. j sexta quaque hora.

26th. Five stools with griping and tenesmus, chiefly greenish mucus mixed with blood. Repetatur Ipecac.

27th. Passed a better night than he has experienced for a month, disturbed but twice in the night, and experienced much less pain. Hab. Ipecac. gr. ij s. q. h.

28th. But two stools since yesterday morning, with less blood. Rep. Ipecac.

30th. Only one or two stools in twenty-four hours, no griping or tenesmus.

Feb. 4th. Going on well. In a few days after, without any change of medicine, dismissed cured."—*Bright's Reports.*

[We employed the ipecacuanha in dysentery very extensively, when physician to the Philadelphia and Southern dispensaries, and were much pleased with its effects. We prescribed it, usually, suspended in mucilage of gum arabic, and with a few drops of laudanum. It is particularly useful in chronic cases, but is also serviceable in very mild acute cases, or where the acute inflammation has been subdued by the usual means. With the aid of absolute [illegible] absolute rest, two most important therapeutic agents in this disease many a case may be cured, which, under the purgative treatment would terminate fatally. We have also derived benefit from the flannel roller, as recommended by Dewees. I. H.]

—

46. *On Hydrops ventriculorum cerebri acutus.* By **Dr. T. H Kopp**, of Hannau, Germany. Communicated for this Journal by **Dr. T. Leo-Wolf.**—This disease derives its name from the very singular results which proceed from it, namely, the formation of water in the ventricles of the brain; and even should the evil not increase to that extent, but merely that state of the disease which is necessary for the formation of the water occur, it nevertheless retains the same appellation.

The commencement of this disease is rarely cognizable, often escapes our observation, or is supposed to be caused by dentition, worms, or merely by a scrofulous state of the bowels, or else by an intermitting fever. Even should the physician pay attention to that disease, it is sometimes impossible to declare with perfect certainty that the existing symptoms are those of incipient hydrops ventriculorum cerebri acutus, because its premonitory symptoms are in many instances the same as those of various other diseases. In the early stage of this disease, the mode of cure can only be based upon a probability, and a satisfactory prognosis is to be formed from the further course of the disease. If the physician discovers its real character only when coma and convulsions have appeared, then all hope of saving the patient is, most generally, extinct. In general, the complete cure of the disease can be effected, solely, in the incipient stages of the complaint, but should the effused water be already exerting a strong pressure upon the brain, and the affection of the sensorium be prevailing, then all expectation of affording relief, is, in most instances, futile.

Among the symptoms of hydrencephalus, I find two characteristical classes, the one is manifested by the *abdomen*, the other by the *brain*. The one appears at first, this I term the *abdominal period;* and the other, from its most striking symptom, the *comatose period.*

I do not mean to assert that the affections of the abdomen, vomiting, constipation, (sometimes diarrhœa,) variation of the urine, collapse of the bowels, general indigestion, irregularity of the appetite, &c. *always* proceed merely secondarily from the reaction of an inflammatory state of the brain. I have at [illegible] patients, where those gastric symptoms preceded, without there existing at the same time any symptom of an affection of the brain, viz. head-ache, vertigo, drowsiness, intolerance of light, &c.; these only ensued after the former had lasted for some time. In many cases, however, the affections of the abdomen were immediately or very soon followed by head-ache, shunning the light, drowsiness, &c. But the affections of the abdomen are, in the incipient and lasting state of the disease ever the principal and most prominent symptoms, and in their duration, force, and extent, they are not proportionate to the primary affection of the head. The affections of the abdomen will never fail to be constantly present in the first stage of the disease, and they will not always be merely *sympathetic*, as if they proceeded consensually from the morbid state of the brain; still they will most certainly much more frequently, than has been believed, maintain an idiopathic character. Nevertheless it is peculiar to these affections of the abdomen, that they maintain a connexion with the affection of the brain, but even suppose that the latter in many instances is the cause of the former, still frequently a peculiar morbid state of the abdomen may be succeeded by that affection of the head; however, this subject will require a further and very minute investigation.

A constant symptom in the first stage of hydrencephalus is *vomiting*, and it is attended with this peculiar characteristic; it comes on unexpectedly and suddenly, without being preceded by excessive nausea; the tongue is generally but little furred and the vomiting is more frequent when the patient is [illegible] or a sitting posture, than in a lying posture. An *irregular stool*—generally costiveness, and rarely diarrhœa—are likewise its attendants. If a child vomits often, at long intervals, if it be costive or its evacuations otherwise irregular, if the abdomen be collapsed and painful to the touch, if those remedies which are commonly employed to remove these affections, viz. Pot. Riverii, extr. colombo, rheum, magnesia, &c. are accompanied with no beneficial result after being used for a sufficient time; if the urine be dark and *slimy*, if head-ache be observed—in infants by their motions and from their cries, in elder children by their lamentations—if the whole state of the disease maintain a kind of stability and obstinacy, then I most particularly advise an attention to the other symptoms by which the beginning of the hydrops ventriculorum cerebri acutus is accompanied.

I have rarely had an opportunity of witnessing in my patients that *itching* which Formey has described. But the confined and collapsed abdomen, without the evacuations of the intestines being increased, (of which *Goelis* gives notice,) as the symptom of the inflammatory state of the disease, requires, as such, all our attention. I have found, however, that affection more particularly in cases where the effusion of water has already taken place.

If the second stage of the disease be arrived, drowsiness and the other symptoms, which denote pressure upon the basis of the brain, then the diagnosis is very easy, but the cure becomes the more difficult, and at this period is generally hopeless.

In cases of very young children, who are not yet able to talk, in determining the *beginning* of hydrencephalus, we ought principally to rely upon the abdominal symptoms, vomiting, obstruction, &c. for the very important symptom of head-ache, is in these cases extremely difficult to ascertain. The other immediate symptoms of the affection of the brain among patients of a tender age, are in the first period equally indistinct, ambiguous, and uncertain, as well as the increased sensibility of the eyes when exposed to the light, the redness of their conjunctiva, their sleeping with half-opened eyes, the fixing of the position of the head, the putting of the hand to the head, the heat in the forehead, the altered feature, the itching in the nose, &c.

Sometimes in the beginning of hydrencephalic affections, even if they are not recognized as being of that character, the cure may be effected, if *calomel* and bleeding be had recourse to, as in various instances of painful dentition.

Sometimes the duration of drowsiness extends from fourteen to eighteen days. I have at least observed in several children, that it lasted throughout this lapse of time. Drowsiness and numerous spasmodic affections were alternatively giving way to more lucid intervals; during which periods the patients did not seem to be in imminent danger, and while reclining, they swallow whatever is placed in their mouth. They sometimes suddenly return to a state of consciousness, awake from their stupor and converse, but as suddenly relapse, into their former condition. This miserable and uncertain state of such patients is described by their friends as one, which places them between life and death.

I remember a case, where, during the period of coma, the left eyeball was very prominent, and the whole eye œdematous.

Often I observed during the spasms an imperfect hemiplegia, in some patients, on the left; in others, on the right side. The arm and leg could then be moved but little, and therefore the patient used the opposite members, whenever he wished to change his posture. The nature of his motions, and even the movements of his features, demonstrated already this partial state of paralysis. The convulsions agitated the lame side in a very slight degree, or not at all.

During the state of coma, I remarked in some hydrencephalic patients a kind of rhythmic striking of one of the arms; the patient raised it upwards, thrust it into his hair, or brought it to his nose, and then laid it down, after a certain time this motion was recommenced, and indeed, I have attended children, who have pursued it for several successive days

One of the most characteristical phenomena in the hydrops ventriculorum cerebri acutus is the seeming likelihood of recovery that appears generally a short time, previous to death.

The disease is not altogether independent of the state of the atmosphere, for it displayed itself so generally at appointed seasons, that the cause must necessarily have been attributed to the particular state of the air, and by no means whatever to casualties. Especially in the spring of the year, 1818, I had an opportunity of acquiring that experience in the case of many children. Exactly at the same time adults were more than usually affected with *epilepsy*, and those adults who had never before experienced it, suffered in common with such as had previously had it: however their disease, particularly that of the former, was not very obstinate, and the cure was radical. At the same time, vertigo, congestion of the brain, and apoplectic affections were prevailing. The weather was dry, and the wind generally from the east and north-east.

If the abdominal period lasts a long time, without being for some weeks succeeded by violent affection of the head, I should conclude, that the secretion of the water will rather be preceded by a mere congestion, than by a real inflammation of the brain.

Certain conditions of the abdomen have this peculiar character, that they excite congestions or inflammation of the brain, and the formation of water in the ventricles, by a sympathetic influence upon the head. To these may appertain such cases of the disease, as began merely with gastric symptoms, unaccompanied by any symptom of an affection of the brain, this latter subsequently appearing. Often in the dissection of those who died hydrencephalic there were found disorganizations in the abdomen, swelling of the glands in the mesentery, inflammation of the liver, of the intestines, &c.

It is very easy to observe, that an hereditary disposition for that disease, sometimes prevails. One family of my acquaintance lost three of its members by the hydrops ventriculorum cerebri acutus; in another, I saw three individuals labouring under this disease, in its more or less advanced state, and I have often seen brothers and sisters suffering at the same time from it.

By one of the phenomena which this disease produces, we are reminded of similar observations, made in relation to croup; namely, that dissection at times does not present to our view that state of the brain, whereby the former condition of the patient may be satisfactorily proved, and we only find a small quantity of water in the ventricles, whereas we should have expected, according to the degree of disease, a much larger quantity of it. I particularly experienced this in the case of a child of two years, who was suffering very acutely from this disease, and whilst it was also suffering from cutting the two hind teeth. The engorgement of the vessels of the brain, was in that case very great, and blood instead of water seems in such instances to be effused into the ventricles of the brain, producing pressure upon the brain, and similar symptoms.

The physician is much more successful in the treatment of croup, than in hydrops ventriculorum cerebri acutus. The former, even in its incipient state, is attended with many frightful symptoms, but if the physician be called in at an early period, he is generally able to control the violence of the disease in a short time. Whereas people most commonly misunderstand the approaching danger of hydrencephalus, and should the physician have the good fortune to remove the complaint, still his merit, as displayed in the cure, is at times not sufficiently acknowledged, because the patient was not believed to be very dangerously ill. If the disease has arrived at that stage, wherein its imminent danger becomes manifested even to the unexperienced, as when attended with convulsions, &c. then, in most instances, a cure may be despaired of. Finally, the uncertainty in the diagnosis of this disease in its commencement, in many cases, prevents the physician from adopting measures sufficiently powerful to prevent the farther progress of this disease.

Even should the disease be not very far advanced, its cure is nevertheless very difficult, but if the water is already exerting a strong pressure upon th brain, it is incurable. The following remedies have been found most efficacious.

Remedies for internal use.—Hydrargyrum in not too small a dose, and administered for a considerable time; particularly calomel, on account of its effect in producing a frequent stool, but in some instances it is better to use the more penetrating hydrargyrum oxydulatum nigrum, (mercur. solub. Hahnemanni.) Digitalis purpurea produces an alleviation of the disease if the secretion of urine be increased by it; but the patients can seldom bear it, because it excites nausea and queasiness, and augments the vomiting.* In some instances rad. scillæ mixed with mercury, were accompanied with a happy effect. In addition to mercury, I have also remarked the utility of the kali carbonicum saturated with vinegar, (potio riverii aceto vini parata, seu liquor kali acetici extemporaneus,) together with aq. petroseli. or aq. flor. til. in like portions. The vomiting being diminished, the gastric affections in general mitigated, and the secretion of the urine, which is so necessary in this disease, being increased. Flores zinci with magnesia, acted successfully in several instances; though they were inferior to the before-mentioned remedies.

More irritating remedies were sometimes accompanied by a very happy result, but only after the free use of mercury, bleeding, &c. Flores arnicæ and moschus, were found to merit the preference during periods of weakness of the pulse, dimness of sight, constant paleness of the countenance, and exhaustion of the patient.

Remedies for external use.—The principal is the application of leeches in a sufficient quantity around the head, and these sometimes repeatedly applied; but if the patients are somewhat advanced in years, a venæsection. Cold fomentations to the head, which part in the very commencement of the treatment should be shaved, for the purpose of employing the external remedies with greater effect. These are composed of nitrum, sal amon. vinegar and water, but the best application is ice in a bladder. Embrocations with ungt. Neapolit, (ungt. hydrarg. ciner.) to the neck or head, or in the beginning of the complaint, with ungt. e tart. stibiat. in order to produce pustules on the head. Vesicatories to the neck, and kept open. The use of clysters with vinegar, assafœtida, &c. Tepid foot baths with mustard, sinapismata to the legs, &c.

---

47. *On Croup.*—M. Emangard, physician of Laigle, in which place croup is a very frequent disease, has lately published a practical treatise on that complaint. The following is a summary of his opinions, which he gives in the form of general propositions. 1st. The term *croup* ought to be restricted to angina, in the fatal issue of which there is formed on the mucous membrane of the larynx, and often even on that of the bronchiæ, a peculiar membrane. 2d. It is probable that this disease has always existed, but that the frequency of its development is subordinate to the physical education of children, submitted to the causes which produce it. 3d. It was not until the middle of the sixteenth century that a description of croup was given by Baillou, and more accurately two centuries afterwards by Ghisi and Home. 4th. It is of most frequent occurrence in northern countries. 5th. It comes on more frequently at night than in the day. It often attacks without any premonition. 6th. The cough is never wanting—it is pathonomonic; the respiration is also peculiar. These two signs are sufficient to distinguish the disease, they always appear simultaneously. 7th. The interior of the throat does not present any peculiar appearance; deglutition is easy. 8th. The rapidity of the progress of croup is very variable. 9th. The affection is essentially inflammatory; its division into species arbitrary and useless. Little importance ought to be given to the division into periods. 10th. The duration of croup always depends upon the promptitude with which assistance is afforded. 11th. It almost always term

---

* I have not yet employed the acidum salis oxygenatum in hydrencephalus, but upon observing its effects in other diseases, particularly in scarlet fever, we may likewise in this disease expect a good result from the use of it.

ates in death if it is misunderstood. It is always curable if it is attacked at its commencement. 12. Patients afflicted with this disease are subject to relapses these are often the consequences of the treatment employed. 14. The croup and the asthma of Millar are two distinct diseases, and require different treatment 15th. Croup is a disease of infancy, but no age is exempt from it. 16th. Free local depletion, to the extent of producing paleness employed at the commencement of the disease is a true specific in croup. 17th. When the use of revulsives joined to this means is insufficient, and the disease arrives at its second stage, death in the greater number of cases is inevitable, temporizing is fatal, it is necessary to perform tracheotomy as quickly as possible. 18th. The performance of this operation is exempt from all danger.—*Annales de la Médecine Physiologique, Septembe*, 1827.

38. *Diabetes.*—Dr. G. C. **Montani** has cured this obstinate disease by a st imulant plan of treatment. The patient had laboured under the complaint fo some time, and was extremely reduced in strength, and afflicted with an almos insatiable thirst, and passed about eighteen pounds of urine in six hours; the quantity of food and drink taken in that period being fourteen pounds. Dr. M put her on the use of stimulants, consisting of a decoction of bark, with laudanum and Hoffman's elixir; this producing good effects was persevered in fo five months, when a perfect cure was effected. The patient took during tha time, thirteen pounds of decoction of bark, two ounces and a half of Hoffman's elixir, besides laudanum, wine, &c.—*Journal des Progrès, Vol. V.*

OPHTHALMOLOGY.

39. *Description of a Cataract Needle.* By **Arthur Jacob, M. D.**—This instrument consists of a common needle of the size "known in the shops, as number *seven*, being the forty-fourth part of an inch in diameter, about one-half the size of the finest Saunders's needle which is made. The point can be turned to the requisite curve by means of a pair of cutting forceps, or the ward of a small key, of course without heat, which would destroy the temper. It must no however be expected that all needles are so soft as to be bent thus cold: there may not be ten in an hundred of this temper, but when once turned they retain the curve without any danger of bending or breaking, and certainly possess a degree of strength and temper, never observed in needles separately forged and finished by the best cutlers. They should always be tried before use, by passing them repeatedly through thick calves-skin leather. After they have received the requisite curve, the point should be cut flat on each side. on a fine hone, and carefully examined with a magnifying glass, to ascertai that it is perfect. The extent to which the point should be curved, may be left to the choice of the surgeon, reminding him that the greater the curve the more effectual the needle will be when introduced, but the difficulty of introducing it through the cornea will also be greater. I therefore recommend those who use it for the first time to choose one slightly curved. After the point has been turned, the needle, held in the jaws of a pair of pliers or a vice, is to be run down into a cedar handle, without cement, leaving only *half an inch* of blade, which I have found to answer every purpose. If the blade be left longer it will yield and spring when opposed to a resistance. The handle should be about a fifth of an inch in diameter, and four inches long. I use the handles made for camel hair pencils, and find that a metallic ferule, which increases the weight, is unnecessary and objectionable. A needle thus constructed, and preserved free from rust, will retain its point for a great length of time. I have used the same one a dozen times without sharpening.

"The surgeon, provided with such a needle, places himself in the usual po sition with respect to the patient, availing himself of whatever assistance he may find necessary to secure the lids.* He then brings the point of the needle within a very short distance of the eye, and when the cornea is brought into an advantageous position, he suddenly strikes the needle into it near its circumference. As I do not apprehend any opacity from the wound, I am not very particular, with respect to the precise point, where the needle pierces, I generally, however, enter it sufficiently near the margin to obviate defect from this cause. The point of the needle once fastened in the cornea, the surgeon has complete command of the eye; no action of the muscles can disengage it, and there is no danger of the needle slipping into the anterior chamber: an elevator or ophthalmostat is therefore altogether useless. The operator now pushes the needle through the cornea, which frequently yields like wet leather, and the eye often turns so much toward the inner canthus that the pupil is hid, and he must rely upon his knowledge of the course which the needle necessarily takes, in order to conduct it to the lens. This is the principal difficulty to be surmounted. If the surgeon does not now steadily push the needle forward, whatever resistance he may feel, he will find, when the eye returns to its proper position, that the point of the needle is still merely entangled in the cornea. This also is the period of danger to the iris: if the operator does not keep the flat of the needle to that membrane, with the point down, and the convexity up, he will be very liable to injure it. Should it happen that the point of the needle has passed through the iris, it may be easily extricated by gently drawing back the instrument without removing it from the eye. After the needle has been fairly entered, and that the operator sees its point at the opposite side of the pupil, he brings the cornea forward, merely by pulling it upon the needle, to which it is completely secured, in consequence of the blade being wedged into its texture. He now turns the point directly back, and gently tears open the capsule, picking and scratching the surface of the lens with a rotatory or drilling motion of the instrument; not with the lever or cutting movement, which is necessary when Saunders's needle is used. If the lens be soft and friable, the fragments fall like snow into the anterior chamber, and the surgeon may deal very freely with it, pushing the needle deep into its structure, and twirling the point round so as to mash it into a pulp. If however it proves hard, and that he attempts to deal thus with it, he fixes his needle in its tough and glutinous structure, turns it out of the capsule, drags it against the iris, and makes it necessary either to extract it or force it back into the vitreous humour. If the cataract be hard, the capsule should be opened, and the centre of the lens cautiously scratched with the point of the needle, so as to expose its texture to the contact of the aqueous humour, by which it is softened and fitted for breaking up on a future occasion. In withdrawing the needle the surgeon has to encounter the same description of difficulty which attends its introduction; it is tightly held by the cornea, requiring to be turned on its axis in order to extract it, as an awl is drawn from leather. It must not however be forgotten that this wedging of the instrument is attended with the great advantage of enabling the surgeon to operate on the most unsteady eye without an ophthalmostat or elevator."—*Dublin Hospital Reports, Vol IV.*

---

50. *New method of treating Amaurosis.*—M. MAGENDIE having previously proved by experiment that the concurrence of the nerves of the fifth pair, are as necessary to vision as that of the optic nerves, supposed that amaurosis might sometimes arise from a paralysis of the first of these nerves, and that by powerfully exciting them, we might produce advantageous results. Being satisfied that these nerves might be punctured with impunity, and having remarked that the pupil was contracted whenever he pricked either of the orbitar branches of the fifth pair, he passed one needle into the frontal nerve, and another into the

---

* Some ophthalmic surgeons recommend that the left hand be employed to operate on the right eye, supposing the operator to sit in front of the patient. I operate on the left eye sitting opposite to the patient, on the right standing behind him with the head resting against my chest: this latter position I find by far the most favourable and convenient.

superior maxillary, and connected each with one of the poles of a voltaic pile in a case of amaurosis of one-half of the retina, accompanied with paralysis of the superior eyelid and some of the muscles of the eye, in three months the retina and muscles of the eye were restored to the performance of their healthy functions.—*Journal des Progres, Vol. IV.*

51. *On the use of Chloruret of oxide of Calcium in Purulent Ophthalmia.* By Dr Varlez.—Dr. Varlez, of the Military Hospital of Brussels, having been struck with the rapidity with which the chloruret of the oxide of calcium, when applied to ulcers, diminished the suppuration, was induced to try it in purulent inflammation of the conjunctiva, and also in the inflammation of the meibomian glands and he has found it to be extremely useful, indeed he extols it as the most valuable remedy known in these cases. "I do not, however, suppose," says he, "that it can enable the practitioner to dispense with the other resources of art, when they are indicated by the state of the disease: it is thus that in severe acute ophthalmia, I employ copious general bleeding, frequently repeated, purgatives, calomel, pediluvia, &c. while in chronic cases I use setons, blisters, &c conjointly with the solution of the chloruret."

Mr Guthrie relates also several cases treated at the Royal Westminster Infirmary for Diseases of the Eye, with this remedy, which prove its utility.

The chloruret is applied in solution, in the proportion of one scruple to an ounce of distilled water: and the strength may be increased to four drachms of the chloruret to one ounce of water. This solution may be dropped in the eye, injected with a small syringe, or applied with a camel's hair pencil. When the solution ceases to be of service, he recommends that the quantity should be augmented, or its use suspended and again resumed after a time.—*Lond Med. and Phys. Journ November*, 1827.

52. *Gonorrheal Ophthalmia.*—Mr. Wishart relates in the October number of the *Edinburgh Medical and Surgical Journal* a case of gonorrhœal ophthalmia, and concludes the account with some remarks on the character and treatment of the disease. These are for the most part very judicious, but there are two or three remarks in relation to its diagnosis, in the correctness of which we believe he will not be sustained either by observation or reason.

"The course of gonorrhœal ophthalmia is marked," says Mr. Wishart, "not only by the rapid extension of the inflammation from the lids to the eyeballs, but by the state of chemosis of the conjunctiva of the eyeball, and the rapid destruction of the anterior membranes of the eye."

Inflammation of the conjunctiva differs in its violence only, and as the degree may be influenced by the activity of the exciting cause, gonorrhœal matter, which is a very acrid secretion, when applied to the conjunctiva, generally, it is true, produces inflammation of a high grade, and which runs its course with great rapidity. But other causes produce inflammation of the conjunctiva, equally violent and rapid in its progress. Thus exposure to the heat of the days, and the light reflected from the bright sand, and the coolness of the evenings, in Egypt, excited in the soldiers of both the French and English armies during the famous campaign in that country, inflammation of the conjunctiva of a most violent grade, and which run on to destroy the eye with great rapidity. To the inflammation thus produced, the name of Egyptian ophthalmia was given, and it was erroneously considered by many surgeons as a peculiar inflammation. Between the inflammation excited by gonorrhœal matter and that produced by the above causes, no one has as yet succeeded in pointing out diagnostic characters, in fact there is no specific difference between them.

Mr. Wishart further remarks "during the whole progress of the disease, (gonorrhœal ophthalmia,) we never meet with any symptoms of inflammation of the iris, thus showing the distinction between this species of ophthalmia and the ophthalmia from true syphilis." When inflammation of the conjunctiva is produced by the application of the secretion from [illegible] when it supervenes to the suppression of this discharge, or when it occurs during the discharge from the urethra, (we adopt the definition of Mr. Wishart, though we confess we do not understand his last form or *species* as he calls it,) it is considered as gonorrhœal ophthalmia. When in like manner inflammation of the conjunctiva is concomitant with, or supervenes to syphilis, it is named, by those who believe in the specific nature of that poison, syphilitic ophthalmia. The whole amount of Mr. Wishart's remarks then appears to us to be that inflammation of the conjunctiva is not inflammation of the iris. If, however, he means to say that inflammation of the conjunctiva, when occasioned by gonorrhœa, never extends so as to involve the iris, he is assuredly wrong: moreover, *metastasis* of gonorrhœa sometimes takes place to the internal tissues of the eye; three or four cases in which this occurred are noticed in the preceding series of this journal.

Mr. W. also says that ulceration of the cornea in gonorrhœal ophthalmia, "differs from all other ulcers of the cornea which are funnel-shaped and filled with pus, whereas in this ophthalmia they are extensive, unequally deep, and seem exactly as if a bit of the cornea had been torn away with a hook." This diagnostic mark is as fallacious as the others. When the inflammation in gonorrhœal ophthalmia terminates in ulceration, it is usually in sloughing ulceration, as often occurs where the preceding inflammation is very violent, and on the separation of the slough, the ulcer described by Mr. W. is left. We have seen precisely similar ulcers succeed violent inflammation produced by blows and other mechanical injuries, &c. especially in drunkards, and in persons of depraved constitutions.

53. *Ossification of the Cornea.*—The eye of an old man was lately presented to the Société Anatomique, by M. Monot, in which the cornea was ossified throughout.—*Nouv. Bibl. May*, 1827.

SURGERY.

54. *Injury received in Dissection, without the Operator being Wounded.* By Sir Astley Cooper.—The terrible consequences that have resulted from wounds received on dissection are too well known to require notice here, but it is not generally known that distressing effects are sometimes produced without any wound or abrasion upon the hands of the operator. Sir Astley Cooper says "It would seem that under certain circumstances a poison is produced sufficiently strong to excite inflammation, even when there is no wound," and he relates the following case:—

"Mr. Cook, surgeon, at Marsh-gate, Westminster Bridge, sent to me whilst labouring under the highest irritative fever, in consequence of having opened the body of a person who had died of puerperal fever. When I examined him, I found the extremities of his fingers of both hands inflamed, as if they had been dipped in scalding water, and the absorbents of his arms red, hard, and knotted to the axilla; yet he had not any wound or abrasion of any kind upon his hands, and it would therefore seem that the fluid produced in the abdomen of this woman, in which his fingers had been frequently immersed was of a highly stimulating nature."—*Lectures on Surgery, Vol. III.*

M. Bégin relates a somewhat similar case—see page 390 of this number.

55. *Periostitis.*—Dr. Casini reported to the Medico-Physical Society of Florence, at their sitting of the 10th of June, three cases of idiopathic periostitis, two acute, and one chronic, which required surgical operations, from which he concludes that the inflammation of the fibrous envelope of the bones is the principal cause of caries, of necrosis, of atrophy, and absorption of the bone. He believes the best mode of curing these diseases is to open promptly the

tumours which he does not consider to be characteristic of syphilis, as M. Montfalcon does. Having observed that periostitis, however near it approached the joints, always spares them, Dr. C. has adopted the opinion sustained by some anatomists, that the periosteum is not continued upon the articular surfaces, or that the perichondrium is an entirely different membrane from it. —*Journal des Progrès, Vol. V. from the Antologia Gior. di Sc. Firenze Luglio,* 1827.

56. *Recto-vesical Operation for Stone.* By Dr. Wenzl.—"This operation was performed with success by Dr. Wenzl, of Munich, on a young man seventeen years of age. The calculus extracted from the bladder was three inches and six lines in length, and in breadth and thickness it was two inches and ten lines it weighed two ounces. It was composed of an external crust, formed of phosphate of lime and of magnesia; and the kernel was composed for the most part of uric acid, with oxalate of lime. The operation was attended with complete success; and the author combats the objection made to the recto-vesical method, particularly by Scarpa."—*Bulletin, &c. July,* 1827.

57. *On the Remedies employed for the cure of Tetanus.*—Sir Astley Cooper divides tetanus into two kinds; one acute, "which generally terminates the patient's existence;" the other chronic, "which, after a time, is often recovered from."

The treatment which he has seen pursued in acute tetanus, has been—

"The warm bath, which gives a temporary tranquillity, and slightly reduces the spasms; but is not followed by any permanent good effects.

"Bleeding, which hastens the patient's death; it reduces the powers of the body; and, although the spasms are less violent, they destroy it sooner.

"Opium, I have generally seen given; but, in acute tetanus, never with any other advantage than a slight mitigation of the symptoms for a short period. I once saw Mr. Stocker give, at nine o'clock in the evening, half an ounce of tincture of opium, and at eleven o'clock an ounce more, without any permanent beneficial influence. To me, it appears to be absurd to resort to a treatment which has been repeatedly found to be inefficacious.

"Tobacco injections I have seen used, but with no permanent advantage.

"Digitalis I have known employed, but uselessly.

"Ice I have seen extensively applied; but all these means, in acute instances fail."—*Lectures on Surgery, Vol. III.*

58. *On the use of Sutures to preserve the Approximation of the lips of Wounds.* By Sir Astley Cooper.—Considerable prejudice exists in this country, and we cannot help thinking with some justice, against the use of sutures. Sir Astley Cooper, however, says that "it is quite a mistake to suppose that sutures are injurious, and that they should be never used; for a wound often heals better with a suture and a cooling lotion, than with adhesive plaster. Indeed adhesive plaster should not be applied to the edges of wounds. Often have I seen it produce erysipelas, and sometimes the erysipelas followed by the death of the patient. After the removal of a large tumour from the breast, I often employ a suture to keep the parts in exact contact, and to prevent the edges from becoming inverted." Sir A. C. recommends that the thread employed should be as fine as possible, and that only as many sutures as are absolutely necessary to produce the desired effect, be inserted.—*Lectures on Surgery, Vol. III.*

59. *Case of Aneurism cured by Compression.* By Dr. A. De Winter.—In the first No. of the second volume of a periodical journal, devoted to surgery and midwifery, entitled "Der neue Chiron," Dr. De Winter gives an account of a wound of the brachial artery, made in performing the operation of blood-letting in venesection of the basilic vein of the right arm of the Queen of Bavaria, which he cured by a compressing bandage. A history of a case of false circum-

scribed aneurism of the radial artery, cured perfectly by the compressing bandage of Heden, the circulation in the artery being preserved, is added by Dr. Weissbrod, professor of the medico-practical school of Munich.—*Bulletin des Sciences Médicales, July*, 1827.

---

60. *Treatment of Wounds of the Trachea and Œsophagus.*—Sir Astley Cooper recommends that in these cases, all food, solid or liquid, should be avoided, and that the patient be supported, as long as nature can bear it, by clysters. He objects "entirely to the introduction of tubes into the œsophagus, as worse than unnecessary, for they are highly injurious by the cough which they occasion by their irritating; and if adhesion or granulation have taken place to close the wound, such tubes tear it open again, and destroy the process of restoration."—*Lectures on Surgery, Vol. III.*

---

61. *On Amputation and the Omission of Ligatures to the Vessels.* By Dr. I. Koch, of Munich.—Notwithstanding the numerous researches and experiments on the alterations and condition of compressed vessels at the place of ligature, it is surprising that the most inaccurate ideas are still entertained on the subject, and that the opinions of physicians and surgeons, on the spontaneous cessation of hæmorrhage from divided vessels, should still be so contradictory and uncertain. Dr. Koch thinks that the subject has not been studied minutely enough, or the phenomena observed with sufficient impartiality to arrive at the truth. He believes that timidity also has prevented our observing that the ligature is useless in many cases, while experience has shown its disadvantages. There are few who will amputate a limb, and fearlessly trust to nature for the security of the cut vessels. Dr. K's father, director of the General Hospital of Munich, "*has not tied a single artery in the various amputations which he has performed for the last twenty years.* To this wide range of experience, the son has added his own, in corroboration of the opinions of his father and of himself, respecting the imaginary danger of leaving vessels untied in amputations.

Arteries, says he, when cut and not tied, remain entirely open, up to the place where they are divided:—The canal of arteries tied in the usual manner remains open also to the spot where the ligature is applied, and their parietes do not unite at this spot. These observations were repeatedly made by the author's father on dead bodies, where the arteries had been cut by him, or tied by other surgeons, many years previously. He always found the diameter of the vessels that had *not* been tied, contracted as they approached the place of section, but the parietes never adherent till the artery ended in a kind of cicatrix. These things are seen in numerous preparations by the author, in the anatomical museum of Munich. The vessels that had been tied presented the same appearances, except that, at the spot where the thread had been applied, there was a narrowing, but never an obliteration of the canal of the vessel.

In a disarticulation of the hand, the surgeon had tied the radial artery, and omitted to tie the ulnar, as it did not bleed. The ligature came away on the 8th day, and on the succeeding day the patient died. On examination, the terminations of the two arteries were so similar, that it was difficult to say which of them had been tied by ligature. Both extremities were perfectly pervious—the radial artery appeared to be slightly torn at the termination.

In numerous experiments on dogs, our author could perceive no difference between the arteries that had been tied, and those that were left to nature. Thus, he tied the femoral artery of a dog, and cut the vessel below the ligature, without hæmorrhage. The wound was closed and healed. A month afterwards he killed the animal, and found the upper and lower extremities of the vessel were completely similar, each being united to an external coagulum by an open mouth.

The formation of a coagulum takes place in some, but not in all cases. But it produces the same effects in the vessels which are tied, and in those which are cut, and not tied. In ligatures of arteries, the internal coagulum is often found in connexion with the external, so as to fill exactly the orifice of the vessel. The coagulum is rarely adherent to the internal parietes of the vessel, and never completely so up to the nearest anastomosis. An amputation was performed at the hip-joint, and the crural artery was tied. The ligature came away on the eleventh day, and, on the fourteenth day, the patient died. On dissection, a clot was found plugging the artery, but the canal of the vessel was open. In a very few cases indeed was the bore of the artery found obliterated after the ligature, by adhesion of the sides of the vessel.

No doubt, says the author, "that most surgeons will stare when I propose the general abandonment of the ligature, as the means of preventing hæmorrhage, especially in amputations. They will be still more surprised when I assert, that, by this omission of the ligature, the most certain means are taken to obviate effusion of blood. Yet this assertion rests on the basis of experience, and can be testified to by all those who have witnessed my father's operations in a public hospital for twenty years past."

Dr. K. appears to think that the spontaneous cessation of hæmorrhage from a divided vessel, depends *chiefly* on some change in the blood itself—partly in retraction of the vessel. The coagulum he considers as the *effect* rather than the *cause* of this cessation of hæmorrhage. This last conclusion appears plausible; for it is hard to conceive that coagulum can form *during* hæmorrhage—and if it form after the cessation of the flow of blood through the orifice of the vessel, it can hardly be viewed in the light of a *cause* of that cessation. All that can be said in this case is, that the coagulum may prevent subsequent hæmorrhage, but this our author denies.

"The application of the ligature," says he, "in disturbing the spontaneous cessation of the hæmorrhage, acts in a manner quite opposed to the end in view. It produces, it is true, a mechanical and temporary obliteration of the bore of the artery, but this is inferior in value to the natural retraction of the vessel, and spontaneous cessation of the hæmorrhage."

This spontaneous cessation is to be aided, or rather promoted, by pressure on the trunk of the vessel leading to the part, and a gentle degree of the same on the face of the stump, either by the hand or by a proper bandage. By these means the stasis of the blood is promoted, and protection from future hæmorrhage secured.

"The method pursued by Dr. K. and his father in amputations is as follows:—After dividing the soft parts and bone, the surface is sponged, and the muscles and integuments brought neatly into contact, and retained by adhesive plaster, so as to secure adhesion by the first intention, if possible. *During* the operation, the vessel is compressed by the fingers of an assistant, and *afterwards* the pressure of the fingers is rendered unnecessary by the application of a compress, laid along the trajet of the main artery, secured by a roller. The patient is then placed in his bed, and the stump kept elevated, and an assistant is directed to make gentle pressure on the face of the stump, for an hour or two—or longer, if he feel considerable pulsation in the part. "When this pulsation has ceased, and when the dressings appear tinged red by the exuding lymph, all danger of hæmorrhage is considered as at an end, provided the patient keeps quiet. Presently, the exudation of lymph ceases—and the dressings becomes quite dry and cold." The patient generally passes the first few days without fever, on which account he is allowed wine, coffee, and other food, which dare not be given under other circumstances. No opiates or medicines of any kind are usually exhibited after the operation. About the fifth day, there is generally some traumatic pyrexia evinced, owing to the suppurative process going forward in the wound; but it requires no particular treatment. A moisture taking place on the dressings about the seventh day, indicates the establishment of suppuration; but if the dressings keep dry, union by the first intention is sure to have occurred. Whether suppuration or adhesion has taken place, the dressings are never removed before the tenth day, or even later, unless violent inflammation or hæmorrhage should arise. They consider that the adhesion of the integuments and muscles is never properly consolidated before the tenth or twelfth day, and therefore that much mischief is done by too early a removal of the dressings."—*Journal des Progrès, from the Journal für Chirurgie und Augenheilkundie von Græfe and Walther, p.* 9. *t.* 560.

---

62. CIVIALE'S *Operation for Destroying the Stone.*—Dr. LA ROCHE, of this city, has seen M. Civiale operate upon two individuals, and *explore* the bladder of a third, (who had been previously operated upon several times,) to find out if there remained in it any fragments of calculi. "In the first of the two before-mentioned individuals," Dr. La Roche writes to Dr. Hodge, "the stone had been in part pulverised and broken, in some previous sittings; in consequence of which, a fragment had passed into the canal of the urethra, and was stopped within half an inch or an inch of the end of the penis. M. Civiale succeeded, by means of a pair of dissecting forceps, in breaking this fragment, and extracting it by pieces; for it was very large, much more so, indeed, than was at first expected, and so irregular as to adhere very firmly to the coats of the canal. Another, but smaller piece, was discovered a little lower down, and scooped out with the help of one of the blades of the lithontriptic forceps. This done, M. C. introduced a curved gum-elastic canula into the bladder, and through it injected some water into that viscus. I must here mention, that after the canula is removed, the greater portion of the water remains in the bladder, which I confess somewhat astonished me; for I had been induced to expect, that the liquid, by irritating the mucous membrane of the bladder, would compel the viscus to contract, and empty itself. Perhaps it is to guard against this effect, which I now suspect will only arise from the stimulus of distention, that M. C. never injects more water than the bladder can well receive with ease, and always inquires of the patient, the best judge in those matters, if a sufficient quantity has been thrown in.

"The next step in the operation was the introduction of the instruments. This as you may remember, was thought in America to be difficult, and even to constitute one of the greatest objections to the operation itself; because these instruments are straight, while the canal of the urethra, through which they must necessarily pass, is curved. Be the shape of the urethra, however, what it may, no such difficulty was encountered by M. Civiale. I will even go further, and affirm, that in these cases, the introduction was effected with more facility, and in much less time, than I had ever seen done by other surgeons, with the common curved sound; so that I am disposed to conclude, that all the objections raised against the operation, and grounded solely on the shape of the instruments, can be very easily removed by witnessing a trial of them by a skilful surgeon. After searching a little while, a fragment of stone was discovered; but, as it was somewhat small, some difficulty was experienced in grasping it firmly enough between the blades of the forceps to allow the full effect of the file. This was finally done, however, and as the stone was soft and friable, the boring was accomplished in a very few minutes. A quantity of sand mixed with water was passed out during the operation between the urethra and the sound. No difficulty was found in turning the stone when it had been bored; all that was necessary was to loosen it a little in the forceps, turn them rather suddenly, and move them about. The boring was once more resumed; after which, the instruments being removed, the patient was allowed to make water. Another operation, to which he was to submit a few days after, has probably terminated the business in this case, and rid the patient at least for some time, of his painful complaint. He appears to have laboured a very long time under the calculous diathesis; as he is now upwards of sixty years of age, and was cut at twelve years for the stone. M. C. was not a little pleased to point out to me a fistulous opening in the perineum of this man, consequent on the operation last alluded to.

"The second patient was about fifty years of age and had laboured a long time under the disease. The stone was very hard and large, and had already necessitated eight operations. Water was injected, as in the former case; the instruments were introduced with the same facility; the stone seized almost immediately, bored, turned, and bored again several times. M. Civiale did not expect to remove all that remains of the calculus, without three or four more sittings. As regards the third patient, I have already said, that M. C. merely sounded him, to ascertain if there remained any fragments of stone in his bladder. This was accomplished with the full set of instruments, so that if any thing had been found, it would have been seized at once and destroyed.

"The degree of pain, caused by the operation in the cases I witnessed, varied In the first it was considerable, and the patient could hardly prevent himself from bearing down and expelling the water. This was particularly the case while the stone was sought after. In the second, much less pain was experienced; while the third patient seemed to suffer very much, from the motions which were necessarily imparted to the instrument, with a view of exploring the whole of the viscus. After the operation, the patients seemed very little incommoded, and, after making water, walked out as if nothing had happened. They are subjected to a suitable regimen, for preventing the occurrence of inflammation, and with the same intention they are recommended to resort frequently to the use of tepid baths.

"This method of removing the stone from the bladder, requires, as you may readily presume, a great deal of dexterity, and a considerable experience in the use of the instruments, on the part of the operator. Many of the best surgeons in France have failed in their first trials; and I am really sorry that in our country it should have been laid aside so soon, merely because those who resorted to it, were not able to wield the instruments at once, with sufficient dexterity to seize and bore the stone as readily as those who had more experience than they. As regards M. Civiale, it is impossible to see him operate without admiring the care with which he introduces the instruments, and accomplishes all the steps of the operation. It is true, that this dexterity can only be acquired by long exercise; but can we not say the same of all operations? and ought a surgeon to lay aside, in despair, and even to censure, a new, less painful, and less dangerous method of ridding a patient of the stone, because, after pushing into the bladder an improper instrument, he has failed to grasp the stone and to destroy it? I have said an improper instrument, because after witnessing M. Civiale's operations, and examining attentively his instruments, I am convinced that the failures in America arise from the improper construction of those made use of there. For example, M. Civiale's forceps, present, when closed and placed in the canula, an olive-like extremity. This is easily done; for two of the blades which are curved in at the extremity are of the same length, and placed in pretty close contact, while the third, being longer, laps, as it were, over the others, and, the extremity being curved like that of the former, forms the extreme end of the olive, and, when imbued with simple cerate, offers little or no roughness to the urethra, as it is pushed along into the bladder. In order that the blades should be of sufficient strength, they are made pretty thick, and are rather larger when closed than the canula, so that they cannot pass through the latter; and to be placed at the end of it, it is necessary to introduce their stem backwards. Into this stem is also introduced backwards, that of the rasp or file. Here, then, is a complete instrument, three in one, the extremity of which is formed by the forceps, and of the proper shape for finding its way into the bladder."

Several of the surgeons of Paris have devoted great attention to the operation of breaking down the stone, and some have made alterations in the instruments employed for that operation by M. Civiale, among others M. Meirien, who offers the following objections to those used by M. Civiale. 1st. That the olive, which the three blades of the forceps form by their union, not being complete, its introduction is difficult, and the mucous membrane of the urethra, dipping into the interstices which exist between them, may be torn, (or, as he expressed it, ploughed,) by the lithontriptor. 2d. The strawberry extremity of the lithontriptor presenting a larger diameter than the cavity of the tube of the stem of the forceps, it is impossible to introduce and withdraw it at pleasure, so that it is necessary, in order to distend the bladder, to introduce primarily an ordinary catheter, and inject water into that viscus before the introduction of the instruments, which complicates the operation. Moreover, as the water injected into the bladder always escapes during the operation, it may happen, owing to the difficulty of replacing it, that the bladder will embrace powerfully the stone and the instruments, and, in consequence of this, the surgeon will not be able to get rid of the former, and from this to disengage the instrument, with a view of withdrawing it from the bladder; or if it succeed, it may only be with the danger of pinching and tearing that viscus. 3d. This accident is so much the more to be feared, as the hooks which form the extreme ends of the blades of the forceps pass over each other, and can, consequently, the more readily seize and tear the coats of the bladder. The fear of this accident is not imaginary; for it has been found, by dissections, to have really happened. 4th. For numerous reasons, which are easily appreciated when we have the instruments before us, the stone is often with difficulty grasped, or it is seized improperly, (as, for example, by its long diameter, or by one of its extremities only,) and then it escapes very readily. This also happens, when the diameter of the stone is more than eighteen lines. 5th. When the stone is seized in the most favourable manner possible, and firmly secured, it is only in our power to bore one hole in it of the size of the lithontriptor, that is, from two to four lines in diameter. It is necessary to seize it, and loosen it a great number of times, which prolongs the operation, and, consequently, the sufferings of the patient; for the seizing of the stone is the most difficult part of the operation for the surgeon, and the most painful for the patient, who generally does not complain during the time we act upon the stone, particularly if the latter has been well isolated from the parietes of the bladder. Repetitions of the operation are always dangerous, when very frequent. 'I have found, on trial on a stone out of the bladder, that to destroy one of an inch diameter, and which is pulverized in ten minutes by means of my instruments,' (it is M. Meirien who speaks,) 'it required to be bored thirty-two times with M. Civiale's; and, even then, there remained fragments which could not have passed through the urethra. It must be noticed also, that as the stone was before me, I could place it in the most favourable positions within the claws of the forceps; which cannot, of course, be so readily done when it is in the bladder; it happens sometimes, also, that after the stone is loosened, and again seized, the lithontriptor is pushed against a part already bored, and it is necessary once more to alter the position of the stone. 6th. If, in the common operation for the extraction of the stone, in which the surgeon has it in his power to explore the cavity of the bladder with his finger, he is liable to leave fragments in that viscus, when the stone has been broken by the forceps, the same accident can so much the more readily happen in the new operation; for we do not possess in this the same means of examining the interior of the bladder. In consequence of this, it happens that patients are imperfectly cured. Of the truth of this, I have in my possession many proofs. It is, therefore, essentially necessary that the stone should be completely pulverized.'"

M. Meirien uses forceps with from six to ten blades, instead of three. "'These blades, like the others, are made of steel, separate from each other, in consequence of their own elasticity, and are brought in opposition by means of a very fine silk cord, passing from one blade to the other, at their extremity, and afterwards communicating exteriorly through the stem. The disposition of the instrument is such that I seize the stone with the greatest facility, and that the fragments that might escape from between the blades into the bladder would always be small enough to pass out through the canal of the urethra. The strength of this instrument is very considerable. It is to be remarked that in all the other instruments there exists a lever of the third species, which is the least advantageous of its kind; because the fulcrum and the power are very near each other, whilst the resistance is at a great distance, which necessitates so much force as to endanger the breaking of the blades. In my instrument, the mechanism is different. Here the power is placed beyond the resistance, by means of the silk placed at the extremity of each blade. The instrument is used with the greatest facility. After having introduced it into the bladder, I open the forceps, sound for the stone, and inject through the stem six ounces of water. Having found the stone, I open the instrument upon it by merely pushing a screw, which loosens the silk; and I plunge upon the stone, which can no longer escape. I tighten the silk; the blades, in consequence, close beyond the stone, and the latter is now confined within a sort of steel basket.

"'There is nothing in my instrument which can wound the bladder or the urethra. In order to seize the calculus, I am compelled, as in the other methods, to place my patient in a fatiguing posture. But, however, when it is once secured in the forceps, I make use of a particular kind of bed, with a peculiar screw, which can be fixed also to any table In this screw, which can be raised and lowered at will, the instruments may be firmly fixed, so that while destroying the calculus, the patient experiences no jarring;' which he must necessarily do, when the instruments are merely held by an assistant. Like M. Civiale, M. Meirien makes use of the bow in order to put the lithontriptor in motion. 'With my instruments,' he continues, 'I attack the stone on a flat surface; I next turn it in order to destroy another part of its circumference. The turning is easily effected by loosening the stone, and allowing it to fall in the inverted cone, formed by the blades of the forceps. In this way I proceed to the last, filing the smallest fragment, and reducing the whole to powder.'

"All the instruments here alluded to by M. M. I saw; and I can vouch for the correctness of his description. They are all really very ingeniously contrived, and if they succeed as well on the living as they have done here on the dead subject, he will certainly deserve a great deal of credit for the alterations he has made in the instruments already in use: for to grind down the stone in one, or at most, in two sittings, and to leave no fragments behind, capable of forming the nuclei of future stones, is doubtless a desideratum. But time and experience alone will decide how far M. M. is founded in his high pretensions, for although he talks pretty largely of what he has accomplished, and of the ease with which he destroys in one sitting a stone of ordinary size, (which has always been the case in his operations,) we have only, so far as I know, his own word for it; whereas M. Civiale's success is known to every one, at least in France, and his operations are already very numerous."—*North American Medical and Surgical Journal, January*, 1828.

---

63. *Fistulous opening into the Larynx.*—In a patient at Guy's Hospital, who had a fistulous opening into the larynx, the consequence of a wound upon the thyroid cartilage, Sir Astley Cooper raised a piece of skin from the surface of the neck above the opening, the edges of which he had previously pared: it united extremely well: and the opening was thus closed.—*Lectures on Surgery, Vol. III.*

---

64. *Wounds of the Intestines.*—In large wounds of the intestines, Sir Astley Cooper recommends that the lips of the wound be united by an interrupted suture; and the intestine returned into the abdomen, letting the end of the ligature hang from the external wound, which should otherwise be closed with great care. "I well know," he remarks, "that in experiments on animals the ligature has been cut off close to the intestine, which has been afterwards closed, so as to leave the ligature to separate into the intestine. Now, I do not clearly understand that this plan in any way adds to the patient's security; but on the contrary, it increases his danger in my opinion, if the process of adhesion be deficient."—*Ibid.*

65. *Lythotomy.*—Comparative trials of three of the modes of operating for stone, have lately been instituted at the Hôtel Dieu. M. Dupuytren performed on twelve subjects the bilateral operation, M. Breschet the lateral operation on eight, M. Sanson the recto-vesical operation on six. M. Dupuytren lost none of those upon whom he operated, M. Breschet lost two, and M. Sanson one.—*Journal Universel, July,* 1827.

---

66. *Cancer of the Rectum.*—M. Lisfranc has performed at the Hospital de la Pitié, the amputation of a very extensive cancer, situated upon the lower part of the rectum. The disease extended transversely from one tuberosity of the ischium to the other, and its antero-posterior diameter was about two inches. The finger introduced into the rectum, reached above the indurations, which terminated two inches from the inferior extremity of this intestine. The upper portion of the tumour was very moveable, and could be drawn considerably downwards. M. Lisfranc believed that it affected only the mucous membrane. Two semilunar incisions were made around the ulcerated parts, uniting at their extremities. He dissected from without inwards, as far as the middle of the sphincter; by means of the finger introduced into the rectum, he drew down the intestine, so as to occasion the procidentia of the indurated membrane, and removed the whole with the curved scissors. The wound that remained resembled a deep funnel, and it was evident the sphincter muscles were in great part destroyed. Two arteries only were tied. The patient recovered after a lapse of three months; he retains his fæces as before, and experiences no pain on going to stool.—*Journal Générale de Médecine.*

---

67. *Amputation of the Neck of the Uterus.*—M. Lisfranc has performed this operation upon twenty subjects, of which number eighteen have been relieved by the operation, in several of them two years have elapsed since its performance. Of the other four two are in a fair way of recovery, and two died, one twenty-four hours after the operation, and on dissection numerous latent cancers were found along the vertebral column, and in the ovaries; the other three months after, from a return of the disease.—*Archives Generales de Médecine, August,* 1827.

MIDWIFERY.

68. "*Accouchement after the Death of the Mother.*—Dr. Klaatsch, of Berlin, has related, (in the *Zeitschrift für die Staatsarzneikunde,*) the case of a pregnant female, who was supposed to have been poisoned by her husband with arsenic, in consequence of which suspicion the body was disinterred a month after it had been buried. The fact of her having been poisoned was thus ascertained, and at the same time the phenomenon was discovered of a fœtus, about the seventh month, lying between the thighs of the woman; the accouchement having taken place after her death. To explain this circumstance, and similar cases related by various authors, Dr. Klaatsch supposes that the extrication of a quantity of gas in the intestines becomes a mechanical cause of the expulsion of the fœtus, accompanied in general with inversion of the uterus, which is facilitated by the complete state of relaxation of that organ. The same opinion was advanced by M. Deneux, in a memoir on this subject published in 1812." —*Bulletin des Sc. Médicales.*

---

69. *Cæsarian Section.*—Dr. Fridzt, Surgeon and Clinical Professor to the Civil Hospital at Prague, has performed this operation three times, two of which were successful; one was in a case of extra-uterine pregnancy.

Case. The wife of a Bohemian peasant, who had previously had one child, the labour perfectly natural, again became pregnant, "and gestation went on naturally till the end of the sixth month, except that the tumour of the abdomen was more projecting than usual, and inclined towards the right side. After the sixth month, the movements of the child were not sensible; the breasts became enlarged, and milk oozed from them for a short time. There was also slight uterine hæmorrhage. At the end of the ninth month labour pains came on, were very severe, but subsided, and returned at intervals of ten days till the end of the eleventh month. She was at this time taken to the hospital and examined by Dr. Krombohoff, Professor of Midwifery in the University of Prague He found a spheroidal tumour in the vagina, and the os uteri turned toward the left side. The case was pronounced one of extra-uterine pregnancy, and the woman was conveyed into the surgical wards and operated upon by Dr. Fridzt. The incision was six inches in length, extending from half an inch below the umbilicus to the symphysis pubis. The head of the child, which presented, was extracted by a simple manœuvre. The placenta and membranes were left in the abdomen. The child had been dead apparently some time. The wound was united by means of adhesive plaster, about an inch of the inferior portion being left open for the escape of fluids from the abdomen. These were the only means employed. She was once bled from the arm, and leeches were once applied. The wound is now almost completely healed, a small fistulous opening remained only at the inferior portion, from which a healthy pus is secreted. She is now taking tonics, and is allowed meat, but neither wine nor beer. The functions are all becoming natural. Stools have hitherto been procured only by means of enemas. The countenance is animated and cheerful, the pulse small, but not irritable; the appetite good."—*Lond. Med and Phys. Journ. Nov.* 1827.

---

70. *Case of Hydatids in the Uterus.* By W. Anderson, M. R. C. S.—"Mrs. E——, of a spare habit and fair complexion, twenty-two years of age, when about three months pregnant, was much frightened by the fighting of two dogs, which caused her at the time to faint, and for some time afterwards to suffer from great dejection of spirits. This continued to increase till the period of quickening, which she states she distinctly felt; after which she gradually improved in health. The abdomen increased in size, and she seemed likely to go the full period, till about the seventh month when slight hæmorrhage came on, with bearing down pains; this, however, was checked and removed by rest, and some slight aperient and saline medicines. The hæmorrhage did not return till the ninth month, and then slightly, when I was sent for, and finding pains, I proceeded to examine the nature of the presentation. This rather puzzled me, as I had never before met with a case at all similar. It appeared to consist of a considerable collection of vesicles connected together, but perfectly yielding.

"As the hæmorrhage abated after the patient laid down, I thought it most prudent not to interfere; and in the course of an hour, after very inconsiderable pains, a large mass of hydatids was discharged, and a great quantity of fluid.

"There was no hæmorrhage after delivery, and the patient did well. Upon examining the mass, I could find but a small portion of solid substance resembling placenta, the principal part being vesicles, the size of a hazel-nut, filled with fluid, and connected together in the form of grapes, the clustering of which fruit they much resembled. They weighed upwards of five pounds.

"The patient had had two children, with which she went her full time; and I can only account for this by supposing the ovum to have been blighted at the time of the fright by the dogs, which was, no doubt, at an earlier period than the patient states, as I could find no trace of fœtus or placenta beyond a portion, having somewhat that appearance, of the size of a walnut."—*Lond. Med. Repos. and Rev. Nov.* 1827.

---

71. *Obstinate Vomiting during Pregnancy.*—M. Dance is of opinion that when during pregnancy, vomiting is protracted beyond the ordinary period, that it

arises from a morbid irritation of the uterus, which together with the membrana decidua, is in a state of inflammation. He has had an opportunity in two cases of testing this opinion by post mortem examinations, and found pus and coagulable lymph between the decidua and internal surface of the uterus, and other symptoms of inflammation. He recommends the employment of decided antiphlogistic measures, applied as near as possible to the uterus, and not to the stomach, which is only sympathetically affected.—*Repertoire General, No. III.*

72. *Cæsarian Operation.*—Two cases are given in the fifth vol. of the *Journal des Progrès*, in which this operation has been performed with success. The first at the hospital at Florence, on a woman of twenty-three; this was executed in the usual manner, the woman was perfectly cured in thirty days, the child was dead.

The second was performed by Dr. Solera, of Padua, on a woman of thirty-eight; this case being extremely interesting we have extracted it entire.

Mrs. J. B. aged thirty-eight, of a good constitution, conceived for the first time, five months after a second marriage, and shortly after having taken the sulphurous baths at Aix in Savoy. The pregnancy presented nothing that was remarkable; on the morning of the 2d of May, 1825, labour pains came on, Dr. Solera, professor of clinical surgery in the civil and military hospital of Padua, was called in; he found on examination that the orifice of the uterus was completely obliterated, and presented no trace of an opening. Drs. Ballardi and Villani were called in consultation, and confirmed the fact—it was also found that there was no obliquity of the uterus, which might have deceived them in the examination, the head of the fœtus was felt above the superior strait, and as the pains continued, they resolved to wait until the next day before deciding on any operation, in the hopes that the uterine contractions would determine a natural opening in the neck of the womb. The patient was twice bled, emollient injections given, and fomentations applied on the vulva and abdomen. The patient passed a bad night, her urine flowed involuntarily in small quantities, and as the abdomen was much distended, the catheter was introduced.

On the next day, Drs. Cristofori, Fortini, and Ottoni, were also called in, and no change having taken place in the patient, it was determined to recur at once to an operation, for fear that a rupture of the uterus should take place, and its contents escape into the cavity of the abdomen. All the physicians were of opinion that the vaginal incision should be resorted to instead of that through the abdomen:—1. From the danger of inflammation of the peritoneum and escape of the waters into the abdomen in the latter operation. 2. From the necessity there would be after the extraction of the fœtus and secundines, of a new operation to give an issue to the lochial and menstrual discharges—yet the ossification of the coccyx with the sacrum, which existed in this case, contracted the antero-posterior diameter of the lower strait about half an inch, rendering it doubtful whether the fœtus could be expelled without recurrence to the forceps. But the accoucheurs did not regard this circumstance as an insurmountable obstacle, and the operation was decided on and performed on the 4th of May. The instruments consisted of a bistoury, similar in its form and size to the hysterotome of Flamant, that is, it was convex, rounded and cutting only at its extremity for about an inch and a half, another bistoury with a narrow strait and pointed blade wrapped with linen, to within a short distance of its point, a third bistoury also narrow, but probe-pointed, and a little convex on its cutting edge. The patient was placed on the edge of a sofa, her head and shoulders slightly elevated by pillows, her feet resting on two low chairs, the operator standing between her thighs, introduced the index finger of the right hand to examine the state of the uterus, and the precise spot for the incision, afterwards having placed on the inside of that finger the rounded and convex bistoury, he introduced it into the vagina, but as the finger could not cover completely the surface of the blade, and thus prevent the lesion of the surrounding parts, the operator relinquished this instrument and made use of the narrow and pointed bistoury, with this he made in the vagina a transverse incision of an inch and a half in length, and afterwards through the body of the uterus, the third incision divided the membranes, and gave vent to a turbid discharge, an assistant now raised the head of the fœtus above the pubis, and the operator with his left hand carried it as far as possible upwards—the incision was now enlarged with the probe-pointed bistoury, to two inches and a half in diameter, the labour pains soon expelled the head of the fœtus through this opening, the birth was now left to the efforts of nature, the pains continued violent, and during the morning the head of the child had advanced much, towards evening however they became feeble, and at long intervals, till finally the uterus became powerless. The next morning they were obliged to remove the child by artificial means—after the extraction of the child, which had died before the operation, the placenta was removed, and injections thrown into the cavity of the uterus. The lochia appeared, and flowed by the artificial opening. Thirty days after the operation the patient was doing well, and the opening of the uterus, which was at first a little to the right, occupied the natural position—the patient shortly afterwards perfectly recovered.

MEDICAL JURISPRUDENCE.

73. *Poisoning with Monkshood.*—"A family in the neighbourhood of Lille were poisoned by this plant, in consequence of its roots having been mistaken for those of the *Ligusticum livisticum*, a species of lovage. An old woman had been in the frequent custom of drinking a tincture of the latter plant as a cordial and remedy for pectoral ailments, and usually prepared it herself. One day her complaint being more troublesome than usual, she took an ounce before supper, another after it, and half an ounce more at midnight. She died in the course of the night. Not long afterwards, three individuals in the family drank each of them an ounce of the old woman's cordial which she left behind her. They were all taken ill in the course of half an hour. One of them had inexpressible anguish, and sense of burning in the throat and stomach, vomiting, purging, tenderness of the epigastrium and cholic, afterwards delirium, manifesting itself in loud cries and violent running; but emetics and emollient drinks calmed his sufferings, and in two days he recovered. Another man of weaker habit of body began to stagger, and appeared intoxicated, then was seized with violent vomiting, purging, and acute cholic pains, and he died in two hours. The third, a young female, complained of a sense of burning and enlargement of the tongue, and then of burning along the gullet down to the abdomen; she was soon after attacked with shivering, swelling of the face, vomiting, purging, and violent cholic, and she died in a state of great agitation, two hours and a half after drinking the cordial. The bodies were examined, and the only appearance of note was great redness of the inner membrane of the stomach and small intestines. A medico-legal examination having been ordered, M. Degland, physician at Lille, discovered that the tincture had been made of the fresh roots of the Aconitum napellus."—*Journal de Chim. Méd. July*, 1827.

74. *Extraordinary Suicide.*—"A Silesian butcher, who had for some time laboured under severe depression of spirits, surprised his wife in the very act of infidelity with one of his men. The effect was such as to drive him to a state of extraordinary distraction, in which he dashed his head several times against a wall; but finding that this did not accomplish his intention, he seized a cleaver, and struck himself repeatedly with the utmost violence on the forehead with the edge of this instrument, until at length he fell dead from loss of blood, and the violent commotion of the brain. It is conjectured, that he must have inflicted a hundred wounds upon himself before he effected his purpose.

"The outrage was committed in the presence of persons who were able to testify as to the nature of the case; but had this person's dead body been found, with marks of violence such as it bore, the conclusion, (in the absence of evidence,) must have been, that the murder had been inflicted by the hands of another person, and in all probability suspicion would have fallen upon the adulterer."—*Lond. Med. Repos. and Rev. July*, 1827.

75. *Rupture of the Bladder.*—M. Cloquet reported to the Royal Academy of Medicine, the case of a man, who, in wrestling, received a blow immediately above the pubis, from the knee of his antagonist. Severe pain, and suppression of urine followed; the catheter brought away only a small quantity of bloody fluid. The patient survived to the ninth day with all the symptoms of intense peritonitis. Dissection revealed a fissure at the fundus of the bladder, the peritoneum inflamed, and urine in its cavity.—*Archives Gén. July*, 1827.

76. *Death from Inanition.*—An Italian writer has lately given the differences in a medico-legal point of view presented in individuals who have died of hunger, or only from inanition, (giuno.) Extenuation of body and general wasting of the form are common to both; in both cases also we find the mouth and tongue arid and dry, but in death from hunger the tongue is blackened, and as it were scorched; in both also the œsophagus, stomach, and intestines are contracted, all the viscera diminished in volume as are also the sanguine and lymphatic systems—but in cases of death from hunger, the stomach and first intestines are inflamed, and often gangrenous, which is never found where death has been caused by fasting. After death from hunger, the membranes and brain are often found in a state of inflammation; this does not take place in inanition; in the latter case also the muscular fibres and most of the tissues have a silvery tint, whilst in the former they are covered with extravasations of an acrid, tenacious, black liquid; the bile is thick, and is sometimes found in large quantities in the intestines. Finally, the bodies of persons who have died of inanition putrify much less rapidly than in cases of death by hunger.—*Journal des Progrès, Vol. V from the Annali Univ. di Med. Milano*, 1827.

CHEMISTRY.

77. "*Rheine, a peculiar Substance in Rhubarb.*—M. Vaudin treated one part of rhubarb with eight parts of nitric acid at 36°, (Baumé,) with a gentle heat and then reducing it to the consistence of a syrup, and diluting it with water, he observed that a peculiar substance was precipitated which he has denominated Rheine, and which has the following properties when dried:—It is of a yellowish orange colour, without any peculiar smell; its taste is rather bitter, and it is almost entirely soluble in alcohol and ether: these solutions become yellow by acids, and of a rose-colour by alkalies. Rheine burns like other vegetable bodies, especially starch. Rhubarb treated directly by sulphuric ether yields a perfectly similar substance: this proves that the new substance exists already formed in the rhubarb, and that it is not acted upon by the nitric acid." —*Journ. de Chim. Med.*

78. *Test for the Presence of Nitric Acid.* By Dr. Liebig.—"The following method is one devised by Dr. Liebig, for the detection of this substance, which it will effect, he says, when there is not more than a four-hundredth part of the acid present. The liquid to be examined must be mixed with sufficient sulphuric solution of indigo to acquire a distinct blue colour, a few drops of sulphuric acid added, and the whole boiled. If the liquid contains a nitrate, it will be bleached, or, if the quantity is very small, rendered yellow. By adding a little muriate of soda to the liquid before applying heat, a five-hundredth of nitric acid may easily be discovered."—*Ann. de Chimie.*

79. *Fallacy of Infusion of Litmus as a Test.* By M. Magnus.—"When pure water is heated for a sufficient time with infusion of litmus, reddened by an acid, it restores the blue colour. It is supposed that the heat gradually causes the free sulphuric acid, which had occasioned the reddening, to combine with the excess of alkali contained in the infusion, and thus to cause the restoration of the blue colour. Hence this preparation cannot be used to test the presence of ammonia in a solution, as water alone produces the effect anticipated from the alkali. The earthy salts contained in ordinary water also produce this effect."—*Journ. de Pharmacie.*

80. *Analysis of the Bile.* By Professors Tiedemann and Gmelin.—Professors Tiedemann and Gmelin have analysed the bile with great care, and have discovered many organic principles, and proved it "to be the most complex of all the animal fluids. They agree very nearly with Thenard as to the saline ingredients, and also with Chevreul as to the presence of cholesterine, which they appear to have detected about the same time as that chemist, and without being aware of his discovery. But they have found the picromel of Thenard to be a compound substance, consisting of resin of bile and a crystalline principle which has a very sweet and slightly bitter taste, like liquorice, possesses all the properties of sugar, except that of fermenting, contains azote, resembles very exactly the sugar of gelatin procured by Braconnot on treating isinglass with sulphuric acid—and is one of the constituents of the bile which has the property of rendering the resin soluble in water. They have allowed it to retain the name of *picromel.* Sugar of bile would have been a more appropriate term.

"The next addition they have made to the analysis of the bile is the discovery of a principle resembling the asparagin found by Vauquelin and Robiquet in the asparagus. When pure it is in the form of colourless crystals, which are six-sided prisms, terminated by four or six-sided pyramids. They are soluble in about sixteen parts of temperate water, insoluble in pure alcohol, very soluble in nitric acid, but without undergoing any decomposition, fusible, and they have a peculiar fresh taste. The *Biliary asparagin,* as they have called it, is another substance, which, like picromel, renders the resin soluble in water.

"Besides the principles already mentioned, Tiedemann and Gmelin have also found in the bile the mucus of the gall-bladder, casein, albumen, gliadine, or that part of gluten which is soluble in alcohol, a little osmazome, oleïc acid, margaric acid, acetic acid, and a new acid, the *cholic acid.* They have, likewise, found that the soda contained in it exists in the state of bicarbonate, that there is also a little ammonia. and that there is no sulphuretted hydrogen in it, as Vogel has supposed. Lastly, they infer that it contains a peculiar colouring matter, because re-agents act on bile in the same way as on the colouring principle of biliary calculi; but they have not been able to separate it.

"The *cholic acid* is procured from the alcoholic extract of bile in the form of acicular crystals. It is distinguished from other acids by a sweet taste. In its properties it resembles the uric, pyro-uric, and purpuric acids, but it has a stronger affinity for bases.

"On the effects of re-agents on the colouring principle of the bile, they have made some interesting observations, from which we shall select, as furnishing the best practical test of the presence of bile, the changes caused by nitric acid. When nitric acid is added in small successive portions to bile of every kind, it causes first a green, then blue, next violet, and lastly a red coloration, which becomes yellow on standing, or on the addition of a large excess of acid.

"The bile, therefore, appears to be an exceedingly complicated fluid. Besides saline ingredients of the inorganic class, it contains mucus, albumen, osmazome, gliadine, caseïn, picromel, asparagin, acetic acid, oleïc acid, margaric acid, cholic acid, resin, and colouring matter."—*Ed. Med. and Surg. Journ. Oct.* 1827

MISCELLANEOUS.

81. *On Vaccination Repeated on the same Individuals.* By Dr. Dornbluth.—In thirty-four children, aged from one to thirteen years, and who had good scars from vaccination, a second vaccination did not produce a true pustule in one. They had only papulæ, if we except a child five years of age, who had been properly vaccinated two years before, and in whom a pustule was developed similar in its progress from the third to the eighth day to that of the vaccine, but it was more transparent, bluish, had an imperfect areola, and dried promptly on the ninth and tenth days. If we except a small papula in an infant who had been formerly vaccinated, no effect was produced in individuals, some of whom had been, and others of whom had not been vaccinated, who were vaccinated with the lymph of this pustule.

The results of a third vaccination of fifty individuals did not differ from those of a second; they were the same also from the reiterated vaccination of adult subjects who had been properly vaccinated, twelve years and upwards before. Two of these individuals had pustules very similar in every respect to true vaccine, but they left no scar. Dr. D. has not ascertained whether the lymph of these pustules will produce a good vaccine pustule. Of two hundred and thirty-four who had been previously vaccinated, a pustule was produced in three only by a second vaccination.

Vaccination performed in sixteen persons who had had the natural or inoculated small-pox from fifteen to forty years before, produced only papulæ more or less ephemeral in their duration, in ten; in four there were false vaccine pustules, finally two others had pustules which could not be distinguished from true vaccine. Persons who had been previously vaccinated, or who had had the small-pox, on being vaccinated with the lymph from one of these individuals, had no pustules; but a child vaccinated with the lymph from the other individual took the vaccine and a pustule was produced which might serve for a new vaccination.—*Bulletin des Sciences Médicales for July,* 1827, *from the Journ. des Prakt. Heilkunde, Nov. and Dec.* 1826.

82. *Account of a Varioloid which prevailed in an Establishment for Instruction at Berlin.* By Dr. Stosch.—This disease was brought into the institution by a young man, sixteen years of age, who came fifteen days before from Colberg, where the small-pox and varioloid prevailed. His disease had all the characters of true small-pox, although he had a vaccine cicatrix on one of his arms. In the space of two months and a half, forty pupils were successively attacked with the disease, which in some appeared in a mild, but in others in a most violent form, presenting all the appearances of small-pox; in others again it assumed all the intermediate grades of violence. All the individuals affected had been vaccinated in their infancy. No constant relation could be observed between the number and form of the vaccine cicatrices and the violence of the disease, some individuals with perfect cicatrices being affected in the most violent manner, while others with irregular and imperfect cicatices had it much milder. All those affected were between the ages of fifteen and eighteen years, and among these the oldest had the disease most violently.

83. *Pharmaceutical School of St. Petersburgh.*—This school, which has existed since 1822, has recently, by the generous patronage of the minister of the interior, been endowed with a botanical garden, which soon will rival the finest and most complete of the kind in Europe. It was planned by M. Fischer, one of the greatest botanists in Russia, who is now director, and is the same who arranged the fine garden at Varinha, in the neighbourhood of Moscow. The garden at St. Petersburgh already reckons upwards of eleven thousand species and eighty thousand single plants.—*Foreign Quarterly Review, July,* 1827.

84. *Insanity.*—Dr. G. Lostritto, Physician to the Insane Hospital at Aversa, has given an interesting summary of the cases admitted into that institution from 1814 to 1824. He states that one thousand seven hundred and twenty-five patients were received during the ten years, of whom the greater number were in 1822–23, arising from the revolution and popular commotions at that epoch. In general there are more insane patients in the summer months—this agrees with observations made in Paris and London; as to age, the greatest proportion of cases occur between the twentieth and thirtieth years, and particularly at the latter. In Naples, males are more frequently the victims of insanity than females—this remark is also applicable to all Italy and Spain. In Naples insanity is frequently the consequence of febrile diseases, particularly of intermittents; but in general is attributable to moral causes. Monomania is the most frequent; from one thousand four hundred and thirty patients, seven hundred and eighty-three were monomaniacs. Dr. Lostritto has found that general maniacs were more readily cured than any of the other species, being about three in ten in men, and five in seventeen in woman; he also observes that more recoveries take place in April than in any other part of the year.

The relative mortality of the sexes is about equal, and the general mortality about one-fourth. The general causes of death at the hospital at Aversa are dry gangrene, exanthematous fevers, and cachectic disorders.—*Journal des Progres, Vol. V.* 1827.

---

85. *Medical Statistics.*—Proportion of births. In Leghorn the proportion of births to the inhabitants are one in twenty-six—in Paris one in thirty—in London one in thirty-two—in St. Petersburgh and Copenhagen one in twenty-one. It also appears that the greatest number of births occur in January and March, and the fewest in June and August.—*Journal des Progrès, Vol. V.*

---

86. *Pulmonary Abscess.*—Dr. Chambers asserts, in the *London Medical and Physical Journal*, for September, 1827, that during the fifteen years that he has been physician to St. George's Hospital, the number of deaths from pulmonary disease has amounted to above six hundred, and that the bodies of all these persons, with a very few exceptions, have been carefully examined after death, and amongst them, according to the best of his recollection, there have been found only three cases of pure phlegmonous abscess in the lungs. During this period also, many individuals with diseases of the lungs, have left the hospital, after receiving various degrees of relief; amongst these, three or four instances of pulmonary apostema have perfectly recovered. So that out of many hundred cases of pulmonary disease, not more than six or seven have occurred of true phlegmonous abscess; of which it may be remarked, that at least one-half terminated favourably.

AMERICAN INTELLIGENCE.

Notice of the Influence of Mercury in the production of Hepatic Affections. By N. Chapman, M. D.—In a short essay on jaundice, in the first number of this journal, I omitted, in the enumeration of the causes of this disease, the influence of mercury. That the inordinate use of this mineral, may in various ways derange the primæ viæ and liver, so as to produce the icterose affections, seems to me highly probable. Many years ago, I saw an inveterate case of jaundice developed, during a protracted salivation for syphilis, which I attended in consultation with the late Professor Wistar—and within the last few months, I was consulted in a second case of it under the same circumstances, in neither of which instances, was there any reason to suspect, any previous disorder of the chylopoietic viscera. But doubting whether these were coincidences or effects, they attracted little attention at the time. More importance, however, do I now attach to them in this view, from having subsequently met with similar instances, reported by a distinguished writer. Cheyne, to whom I allude, states,* "that it does not appear to be generally known, that mercurials actually produce jaundice, though it is a fact of which I have seen, within the last two years, some striking examples." The history of these cases agrees in all essentials with that of those which occurred to myself.

It is somewhat remarkable that this fact should not have been earlier applied by me, since for several years, I have taught in my lectures, that the extravagant employment of mercury by many of our practitioners, in autumnal fever, and other diseases, must be assigned as one of the causes for the general prevalence of chronic hepatic affections in some portions of our country. Even drachm doses of calomel and copious inunctions, repeated several times in the day, constitute the practice, as I have understood, of the ultra mercurialists—and, though others do not urge it so far, there is abundant reason to suspect the too common abuse of this remedy.

More than any agent whatever has mercury the power of exciting the action of the liver, and it is a law of our nature, that all high excitement is followed by a correspondent degree of debility. Adverting to the unparalleled application of the article in the cases mentioned, it seems to be no unreasonable supposition, that the hepatic apparatus, thus over-stimulated, should fall into collapse, and in this state of exhaustion, languor shall take place in the portal circulation, productive of congestion, eventuating in induration or more serious disorganizations. Exactly in this way, do miasmata, high temperature, and the habitual consumption of ardent spirits, operate to the same effect. Called upon to explain the modus agendi of these baneful influences, such a course of reasoning, would probably, at least, be instituted by most of the profession.

In further support of this hypothesis, I have learnt from the venerable Dr. Somerville, of the south of Virginia, who has practised medicine in that section of the country for nearly half a century, that till the enormous introduction of mercury in the treatment of autumnal diseases, hepatitis was hardly known, and since, it most widely prevails. Not a few confirmatory statements have I received from my correspondents in other parts of the United States, so that the fact seems pretty well established.

Let it not, however, be imagined, that I am opposed to the use of mercury in the diseases to which I have alluded. Great confidence, on the contrary, do I

---

* Dublin Hospital Reports, for [illegible]

[illegible] in it, and especially in the hepatic affections. It is against its abuse I protest, and here I cannot forbear to express the opinion, that in all cases where its specific impression is desired, that the end will be more effectually attained by minute doses of it—and I am equally certain as an evacuant, too largely administered our purposes are frustrated by the ultimate overwhelming of susceptibility, leaving the alimentary canal and liver, in the torpor of indirect debility, or inducing a pernicious state of irritation, or positive phlogosis, with an irregular febrile movement.

Its salutary effects may perhaps, under all circumstances, be mainly ascribed to the promotion of the biliary and other secretions, and failing to do this, it proves inert and unavailing, or causes such a train of deleterious consequences as above indicated. In the management of chronic diseases of the liver of every description, these are considerations which should invariably control its use, continuing or discarding it, according to the mode in which it affects the system. Numerous are the instances which I have seen of hepatitis, as well as of jaundice, in which the condition was most conspicuously deteriorated by a neglect of these practical maxims, and some, where irreparable mischief was entailed by a lengthened perseverance in this mistaken course. It will sometimes happen that mercury proving inappropriate or useless, the nitro-muriatic acid exhibited internally, and applied externally by frictions or as a bath, may succeed. But a more extended view of the subject would lead me into details inconsistent with the limits of this note.

Notice of the Efficacy of Tobacco in Cynanche Trachealis. By N. Chapman, M. D.—Two years ago I was called to visit a lady in croup, whom I had frequently attended before in attacks of the same disease. Having used the ordinary remedies to a great extent without any decided impression on the case, it occurred to me that relaxation of the spasm of the larynx, which evidently existed, might be induced by tobacco, and accordingly directed the smoking of a cigar. Nausea was created in a few minutes, and I had the satisfaction to witness a subsidence of the affection, followed by an entire cure, without the interposition of any other means. Delighted with the efficacy of this very simple remedy, she has since exclusively relied on it, and in all the attacks of the disease, which have been numerous, for she is hardly ever exposed to its causes without suffering in this way, she has found it equally successful.

Every case of spasmodic croup which has subsequently come under my notice, has in the early stage to which I consider the tobacco only applicable, so readily yielded to the common measures, that I have had no occasion to give it a further trial. But in several instances of the same condition of asthma I have used it with great advantage.

Much discussion has taken place relative to the pathology of croup, whether it be of a spasmodic or inflammatory nature. It is probable that whenever it suddenly comes on, it must be essentially of the former character, as some time is required to induce phlogosis, which is the result of a much slower process. No cause, however, more rapidly promotes it than spasmodic constriction, and hence no long period elapses till inflammation becomes established. That such a view is correct, seems to be confirmed by the symptoms, the treatment, and the post mortem appearances in these cases.

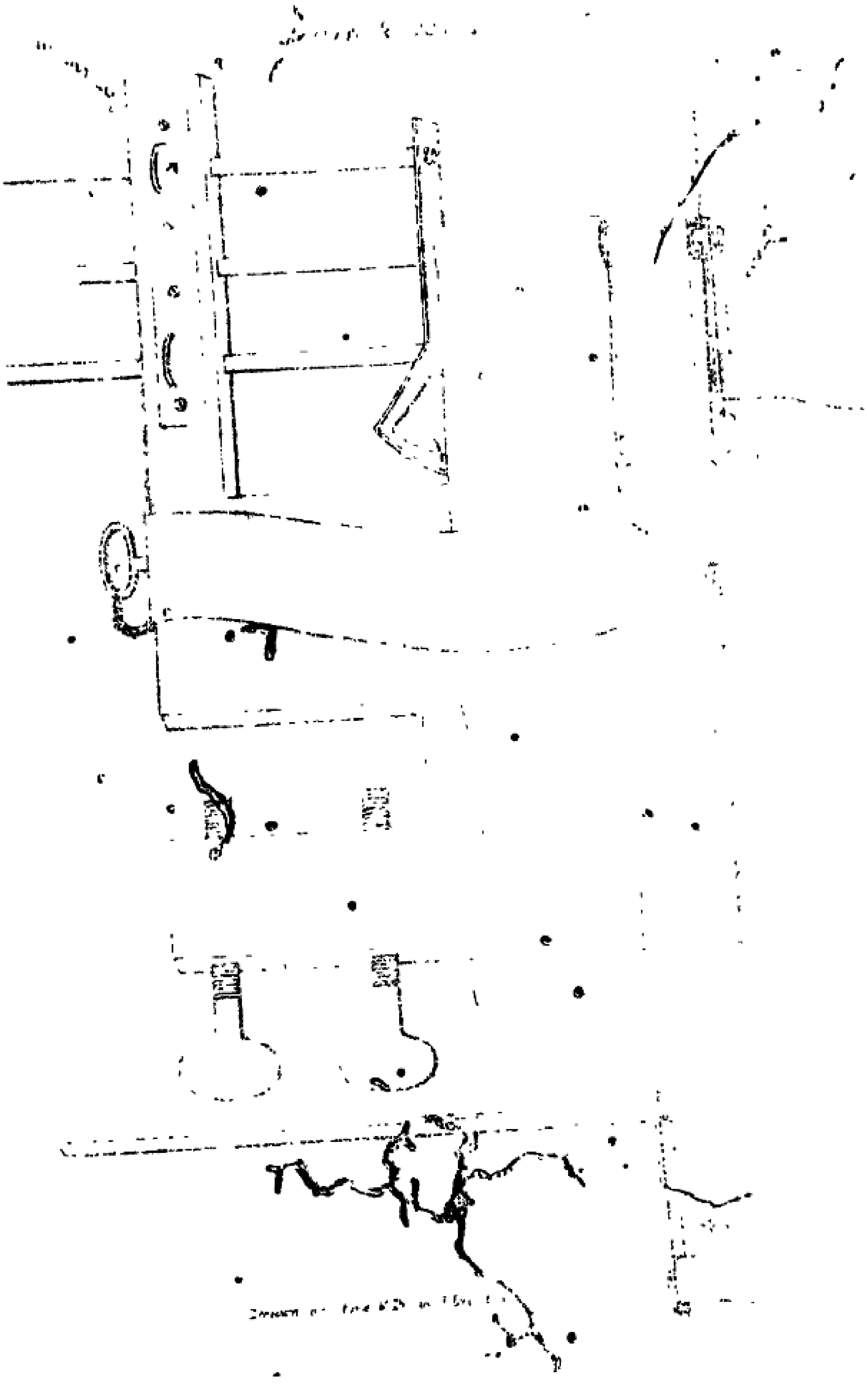
Case of Tetanus successfully treated with Arsenic. By Wm. J. Holcombe, M. D. of Lynchburg, Virginia, communicated in a letter to Professor Chapman.—"Believing any thing connected with the treatment of disease will not be uninteresting to you, I take the liberty of sending you the following history of the successful termination of a case of tetanus. It was my intention to have given you this statement much earlier, but have deferred it, with the view of further testing the efficacy of the remedy; but not having met with a case of tetanus since, I have determined to communicate it to you, as it affords additional evidence in favour of the powers of arsenic to control spasmodic action. I extract the case, from the notes taken at the time it occurred.

March 14th. 1820.—I was this day called to visit a patient. He was a remarkably strong, robust negro man, about twenty-five years old, and had always enjoyed good health. About two weeks ago, as he was walking across the floor in his stockings only, he stuck a common brass pin into his heel. He felt no inconvenience from it at the time, and conceived the injury to be of no consequence. A week after the occurrence, he felt some uneasiness in the heel, but not recollecting at the time, of having pricked it with a pin, the week before, he concluded it was the beginning of an affection, frequently occurring, among negroes accustomed to go barefooted, commonly designated *stone bruise*. It gave him much pain, and his mistress directed a common poultice to be applied. After continuing the poultice two days, it appeared as if there was a collection of matter formed. It was opened, but instead of matter, a small portion of a thin yellowish fluid was discharged. He became worse, some symptoms of lockjaw having supervened, and I was requested to see him. When I entered the room, I found him in a strong spasm. I inquired if there was no wound about him. The attendants answered, (to use their own language,) that he had a stone bruise on his heel. Upon examination, I found the heel somewhat swollen, with a small elevation covered with a very thin skin, under which there appeared to be a collection of fluid. I divided the skin with a lancet, and a few drops of a semi transparent fluid escaped. The wound though small, was of a greenish colour on the outer margin, and the centre was of a pale whitish and flabby appearance. It was not larger than a quarter of a dollar; the pain in the foot was excruciating, and extended up the thigh, from thence to the muscles of his back which were very much contracted, producing a great degree of curvature in the spine. The muscles of his neck and jaw were very much affected during the continuance of the spasms, throwing the head backwards and clenching the teeth together. The muscles of his abdomen were likewise very rigid, and to use his own expression, "there seemed to be a constant pulling at his heart." These spasms were not constant, but occurred every half hour, and continued about five minutes, after which he was comparatively easy until they returned. His pulse was rather small and frequent, affording but little resistance, upon pressure, to the fingers. His skin rather below the natural temperature, he had no thirst or any other symptom indicative of febrile action. Being fully satisfied that it was a genuine case of tetanus, I made two deep incisions crossing each other in the centre of the wound. I then with a probe, filled the incisions thus made, with lint wet with spirit of turpentine, and directed that the whole surface of the wound should be kept moistened with the same. I ordered a blister to be applied, covering the foot and extending upon the leg above the ankle. I then directed ten drops of Fowl. sol. arsenic, combined with fifteen drops laudanum in a little water, every two hours; also one grain of calomel upon the intervening hours.

15th.—I found the spasms recurred not so frequent, but equally as severe as they were yesterday. The blister drew well—the wound had lost its greenish colour, and now appeared red. No matter discoverable—pulse and skin as yesterday—no evacuation from the bowels. Prescription the same.

16th.—Has had but few returns of the spasm in the last twenty-four hours. The wound begins to matter. The calomel has operated twice. His pulse fuller and softer, and more regular. Complains of some heat about the stomach, and has some thirst. Skin warmer than natural, with slight moisture about the head and chest. Spirit of turpentine to the wound—eight drops arsenic—ten laudanum every third hour through the day. One grain of calomel every third hour.

17th.—Still continues to mend. No return of spasms since I last saw him. The wound matters freely. Pulse regular. Bowels open. Calomel has no



[illegible] his mouth. Skin hot. Some burning in the stomach with a good deal of thirst. Directed simple cerate to the wound—five drops arsenic, and eight of laudanum, every eight hours. Calomel discontinued.

18th.—No return of spasm. No pain. Pulse regular—skin pleasant. Some thirst. Burning about the stomach not so great as yesterday. Wound healthy. Directed moderate dose calcined magnesia. Other remedies discontinued.

19th.—Medicine operated twice, and patient doing well, with some appetite to day for animal food, for the first time. Directed his bowels to be kept open with magnesia or some of the neutral salts. In a short time he commenced his usual labour.

The above case of tetanus is one of the few, within my knowledge, that has terminated favourably when arising from a wound. Whether the cure is to be attributed to the arsenic alone, future experience must determine. It appears at least to deserve particular attention, as no remedy should be neglected that promises any benefit in this truly alarming disease. What share the blister may have had in relieving the patient, I am unable to determine, but it seems from his speedy amendment, that it may have contributed in good measure to relieve that peculiar nervous irritability upon which the disease depends. The particular manner in which the arsenic operates is not very intelligible, for in this case there was some amendment before the patient complained of any burning about the stomach, but the spasms did not subside entirely, until that symptom was developed. I am induced to believe that it operates by producing a [illegible] effect upon the stomach, and extended by sympathy to all the muscles affected. I think I am warranted to draw this inference from the fact, that so soon as this patient complained of a sense of heat at the pit of the stomach, the skin which was before rather cooler than natural, became warm, with a slight disposition to perspiration. It is worthy of remark in this case, that the calomel produced nothing like ptyalism, and if of any benefit, must have been simply as a cathartic. The particular manner of its operation is only interesting as a subject of speculation, but that it may be made, (to say the least of it,) a valuable auxiliary in the treatment of this formidable disease, I am fully satisfied."

Dr Taylor has communicated to Professor Chapman some cases of tetanus cured by the arsenic. Vide Elements of Therapeutics, by N. Chapman, M. D. &c. Vol. [illegible] ed. V. p. [illegible]77.

Description of a Bandage Roller, with some Remarks on Bandages. By W. E. Horner, M. D. &c. [With a plate.]—The annexed print represents a small machine for rolling bandages, which I have employed for several years in my private business. Its advantages are the celerity of its operation: and the smooth, hard, regular and cylindrical form which it gives to the bandage, all of which conditions are indispensable for its application with neatness and precision.

A glance at the drawing will make the reader understand that the machine consists in a windlass, and a frame-work upon which the latter revolves. The windlass represented by fig. 2d, is a cylindrical wire of three lines diameter, with a slit an inch and a half long sawed in it near the handle, for fastening the end of the bandage. The complete machine is seen in fig. 1st, with a bandage adjusted for winding up. In the lower part of fig. 1st, is a notch with two vertical screws for fastening on the edge of a table. To the left of the bandage is seen a rack which may be slid inwards or outwards so as to be adjusted to a bandage of any width from half an inch to six inches, when adjusted it is retained in its position by screws pressing upon its horizontal bars.

Above the notch is a transverse band, moving upon a joint on the right side, and fastened by a pin at the left. The band is made of sheet-brass, and its object is to increase the friction of the bandage by crossing and pressing upon it as it is rolled up: its inferior margin is a paraboloid curve which assists [illegible] materially in spreading out the bandage from the middle to the edges, and taking out of it any wrinkles. The edges of the bandage are kept stretched and smooth between the strap and the windlass by two arms, one on each side; that on the left is connected with the rack, and moves with it: that on the right is fixed to the frame. they have the effect of giving to the bandage as it goes up to the windlass the shape of a line with the ends advanced ⌒ which seems necessary to communicating smooth uniform extremities to the roller as the winding is proceeding.

The frame of this machine is thirteen inches in its long diameter, and eight in the short one; it is made of mahogany, and strengthened by brass [illegible] at the places where it is subject to a strain, as at the angles of the [illegible] and at the screws for fixing the rack. Its portable size, and the ease with which it may be fixed to any common table, make it a very convenient [illegible] in all dressings requiring a succession of long bandages, as in fractured clavicle, and in varicose veins of the leg. A roller, ten yards long, and in the most wrinkled state, is wound up smooth in a very short time. When the roller is to be detached from it, one or two reversed turns of the windlass frees the internal end of the bandage, and then the windlass may be easily drawn out from it.*

While on the subject of bandages I may be permitted to state that it is a very great improvement on them in many diseases, and especially where it is desirable that the limb should be well supported, and not [illegible] varicose ulcer, for the bandage to be cut *bias*, so called by the seamstresses, or diagonally. Common muslin answers perfectly well, and the division of a square should commence by turning down one corner to the full length of the square. The true diagonal line being thus obtained, it may be cut up into parallel strips. The selvage ends of which being sewed successively together will make a bandage of any desired length. In cutting out the strips, allowance should be made for their narrowing about one-third upon being first stretched. For example, if a bandage of two inches is wanted, it should be cut originally three, and so on of other dimensions.

The elasticity of this diagonal bandage and its comparative comfort may be tested in a few minutes by any one who will have one arm tightly wrapped by it, and the other by the common rectangular bandage. I have frequently reconciled people to it who could not be persuaded to the permanent use of any other; and in addition to other advantages, it holds its place better, does not press at the edges, and does not ravel. The repeated advantages that I have derived from it in varicose veins induces me to recommend it to the profession as well worthy of attention.

Case of Twins, by A. DELBON, of Camden, S. C. communicated in a letter to DR. HAYS.—The following case may not prove altogether unacceptable, it did not fall under my immediate observation, I am indebted to my intelligent friend, Doctor E. H. Anderson of this place, for the facts and the preparation which he had the kindness to send me.

A healthy wench, aged about twenty-three years, was taken in labour at the full period with her third pregnancy. The pains were regular and effective, the vertex presenting, on the membranes giving way, the head engaged in the superior strait, where it was delayed; the uterine contractions increasing in frequency and severity without advancing the head, alarmed the "old woman," her fears were augmented on discovering a round body in advance of the vertex, which she concluded "was attached to the head," and from which she drew the most awful presages and sent off for assistance. This truce, no doubt, spared the uterus much unnecessary violence, and being let alone, (before my friend arrived,) it expelled, unassisted, a large healthy child, and with it a blighted fœtus, its membranes and placenta. The secundines of the living child soon followed. Was this a twin case, the product of the same conception? Was one of the fœtuses blighted in the earlier months of gestation and retained to the full period, without affecting the healthy action of the uterus? It might be contended, that this was a case of superfœtation. The description of the preparation and appearances on delivery will dispel this conjecture, [illegible] as it will go to prove that it had been long retained after its destruction, by a passive consent of the uterus, for during the whole period of utero-gestation there had been no effort at expulsion.

---

* This machine is made by Mr. Schively, surgeon's instrument maker of this city, to whom the pattern has been communicated.

The following appearances presented. The colour of the fœtus, dull yellow: structure soft, cuticle and muscles easily torn on being handled; length from the posterior fontanelle to the heel, eight inches; length of the trunk, four inches, depth of the thorax, four lines; right parietal bone, trunk and extremities, flattened, left side of the head natural; extremities extended and elongated, posterior surface from the occiput to the heels, *firmly attached* to the investing membranes, superior extremities tied down to the sides of the trunk: internal organs soft and white; loose portion of investing membrane, natural; portion attached to the fœtus, dull yellow colour, firm, and dense: Placenta changed in shape and structure, tough, thick, and cellular, shape an irregular square: colour of exterior surface, bright yellow; interior, composed of strong bands running in various directions; meshes containing dark coagulated blood: the inner surface of the amnion and placenta, exhibited traces of recent circulation, umbilical chord soft, usual length, connecting the fœtus to the placental mass, of the dead colour of the fœtus; no smell of putrefaction, although examined several hours after expulsion. The flattened appearance of the fœtus bore the impress of long pressure, and was certainly not produced in its passage through the strait.

I am of opinion the destruction of the fœtus was completed, if not commenced, by the vigorous child impinging on its fellow, consequently checking by its pressure its further development, and at last destroying it. I hazard this conjecture from the fact, that adhesion could not have taken place between the fœtus and investing chorion without a fixed and steady contact, maintained by the increasing bulk of the living child—in proportion as the healthy fœtus continued to be developed was the pressure increased, producing irritation and ultimately, death, when the dead matter ceased to oppose its encroachment, it yielded as far as its form and structure would permit, hence the elongated and flattened appearance of the head and trunk, and extension of its limbs. The structural changes in the placenta, must have been gradual and progressive; it commenced with the early vicissitudes of the blighted fœtus, and when that refused its proper nourishment, it had no longer to perform an important function; and had to accommodate itself to the change—this it effected, but in what way it is impossible to determine; it continued to adhere to the uterus, and maintained a circulation, after the death of the fœtus it was destined to nourish.

Case of Excision of a part of the Spleen. By W. B. Powell, M. D. of Ky.—In the latter part of May, 1826, J. F. was stabbed in the left side, about four hours previous to my seeing him. I found the wound covered with soot and flour, which the matrons present had applied to stop the hæmorrhage. The patient was quite ungovernable from inebriation. After cleansing the wound, I found nearly two inches of the spleen protruded through an incision that had been made between the second and third false ribs, about four inches anterior of the spine, by a knife or large dirk, directed downwards, inwards, and forwards, to the cavity of the abdomen. Upon inquiry, I learned that the individual had eaten, as well as drank, but a short time before the riot, to an intemperate extent. Having satisfied myself with regard to the nature of the protrusion, I intended to attempt its reduction, but was prevented by discover ing a slit in the protruded extremity, near one inch in length, which induced me to believe that such an act would endanger the patient's life from internal hæmorrhage; though but little blood followed the wound, in consequence of the stricture by the lips of the wound. Hence, as the night was considerably advanced, having no other light than that of a very indifferent lamp, the patient being intoxicated, and having no disposition to pass a ligature and amputate upon my own responsibility, I deferred doing any thing more until 9 o'clock next morning, when I was accompanied by Dr. Bennett, of Newport, Ky. At this time we both examined the case, and were satisfied that the protrusion consisted of one extremity of the spleen, in a high state of inflammation. In consultation, Dr. Bennett thought that we could institute no practice that would result in the recovery of the patient, from the complicated character of the wound, and the patient's habits of intemperance; hence, in his opinion, it was of no importance what was done, as he believed that death from peritoneal inflammation would ensue before the termination of the fourth day.

From my own views of the animal economy, the evidence of others, relative to operations involving the peritoneum, and my own experiments upon inferior animals, I was induced to believe that a more favourable result might be hoped for. The patient was about thirty years of age, possessing but little nervous irritability, and had not prosecuted his habits of intemperance to the production of organic, or even manifest functional disease; consequently, I considered his system as possessing strong recuperative powers.

With such views of the case, I prepared a ligature from a slip of a tendon, taken from a beef's hock that had been some time in brine, and passed it around the stricture formed by the external incision, and then amputated the protruded portion. I then attempted to make a perfect reduction of the spleen, but found it impracticable, without the use of injurious force, to get the amputated extremity of the spleen below the diaphragm, because of the great contraction of that muscle.

Believing, as I did, that his system was competent to the removal of that portion of the spleen contained above the incision made in the diaphragm, I did not hesitate to let it remain, as it was reduced within the thoracic parietes; hence, I closed the external wound, took a pound and a half of blood from his arm, put him to bed, prescribed light diet, and an absence from company.

On the third day his pulse, skin, &c. indicated an unusual degree of constitutional excitement, when I ordered tartris antimonii with the sal. soda, in small doses, and bread and milk poultices to the wound. On the fourth day healthy pus was discharged from the wound; this discharge continued three days, and then, (I suppose,) it was discharged internally, producing or followed by symptoms of peritoneal inflammation, which yielded to the administration of the above named medicines, with warm fomentations and evaporating lotions to the abdomen. After this he continued to improve, and on the fourteenth day was discharged from my care, though the wound was not entirely cicatrized. I saw him nine months after, when he informed me that the wound was perfectly healed, and that he enjoyed excellent health.

Case of Femoral Aneurism of the Left Thigh, and Popliteal Aneurism of the Right Leg, Successfully Treated. By VALENTINE MOTT, M.D. Professor of Surgery in Rutgers Medical College, New York.—L. P. about thirty years of age, having lived very freely, and suffered from a syphilitic taint, felt suddenly a painful sensation in the upper part of the left thigh, from a violent effort at lifting. A tumour immediately arose which was extremely painful, having the characteristics of aneurism. Some considerable time after this, upon drawing on his boot suddenly and stamping his foot violently upon the floor, a popliteal aneurism was produced in the right leg.

The popliteal aneurism increased the mass rapidly, but though urged to submit to the operation in the early stage, he would not consent until it was upon the point of bursting.

The femoral artery was tied at the usual place, and the next day a discharge took place from the tumour.

Fourteen days from this operation the external iliac very high up was tied for the femoral aneurism of the left thigh, it having suddenly become diffused during the preceding night, extending nearly up to the internal iliac, and giving the patient the most agonizing torture.

From the opening of the popliteal aneurism a large ulcer was left, which upon healing occasioned a slight contraction and lameness. In other respects his recovery was complete, and he now enjoys a better state of health than he has known for years.

GIBSON'S *Improved Trephine.*—Professor Gibson, in consequence of having seen much mischief result from the practice of rasping the pericranium, and from the teeth of the saw of the common trephine when applied in the usual way, has had constructed a "trephine with a small moveable lancet attached to its outer surface, the extremity of which can be made to project about the sixteenth part of an inch beyond the teeth of the instrument. The object of this is to cut the pericranium instead of tearing it. As soon as this is accomplished, the operator may retract the lancet and proceed to saw the bone."—*The Institutes and Practice of Surgery, by Wm. Gibson, M. D. &c. 2d Ed.*

Report of the Committee appointed by the Philadelphia Medical Society to inquire into the remedial value of the more prominent specifics now sold in Philadelphia.—The Philadelphia Medical Society have just published the very elaborate report of their committee appointed to inquire into the remedial value of the more prominent specifics now sold in Philadelphia. We have not room for the whole of this report, but we insert several of the more important of the documents obtained by the committee.

Letter from Professor Chapman.

Excepting "Swaim's Panacea," I have no knowledge of any of the nostrums to which you allude in your communication to me. Early in the history of that article, I was induced to employ it, as well from professional as common report in favour of its efficacy, and was well pleased at the result in several cases. But more extensive experience with it, soon convinced me that I had overrated its value, and for a long period I have entirely ceased to prescribe it.

As to its composition, I have satisfied myself, and by no equivocal evidence, that it essentially consists of a saturated decoction of sarsaparilla, with corrosive sublimate, and that it is an inferior preparation to the syrup de Cuisinier, principally constituted of these two ingredients, and which is now so much used in the practice of this city.

It were easy to point out, and indeed to demonstrate, the great mischief which has resulted from the indiscriminate employment of this nostrum, and I am in possession of not a few cases, which, if you wish them, are at your service, eminently calculated to alarm the public on this subject.

(Signed) N. CHAPMAN.

Philadelphia, Sept. 29, 1827.

Letter from Dr. Harris.

Though I have never prescribed Swaim's Panacea, yet I have witnessed the effects of its exhibition in diseases of various characters.

The first case was Mrs. E. who was affected with herpes exedens of the nose. The case had been under my care at different times for two years, during which period I succeeded in healing the ulcer several times. She afterwards resorted to Swaim's Panacea, with the effect of aggravating the ulcer, and of producing an unyielding diarrhœa. It is now seven years since she placed herself under the care of Swaim, since which the ulcer has continued to increase in size. In this case the nostrum proved injurious to the local disease, and induced an impairment of the general health, from which she has never recovered.

Second Case.—Captain L. affected with indolent ulcers of the leg, took ten bottles of the Panacea without the slightest benefit.

Third Case.—Mr. K. a scrivener, afflicted with dyspepsia, applied to Swaim for relief. As might be anticipated, the Panacea was prescribed. After he had taken the second bottle he became salivated, and shortly afterwards appeared a mercurial eruption on his shoulders and face. Upon showing the eruption to Swaim, he expressed his satisfaction at its appearance, and added that his "medicine was driving the disease out through his skin." He encouraged his patient to persevere with his medicine until he had taken a few bottles more. The effect was an increase of the salivation, and an extension of the cutaneous disease, until it covered nearly the whole surface of the body. After being under the influence of a profuse salivation for three months, which, besides producing mercurial ulcers, emaciated his body almost to a skeleton, he applied to my friend Dr. Mitchell and myself, for relief. We were unable, however, to render him any important service. The long irritation of the medicine brought on ascites, of which he died in a few months.

I have seen it applied in several other cases, but in no instance with the slightest advantage.

(Signed) THOMAS HARRIS.

November 8, 1827.

Letter from Dr. Randolph.

Owing to fortuitous circumstances, the celebrity obtained by various empirical articles now sold in this city, has been such, that in all probability, there is scarcely a single physician engaged in the practice of his profession, who has not had some opportunities of witnessing their effects. As our attention has been but so very lately officially drawn to this subject, I regret to state, that I cannot furnish you with any certified testimony of my knowledge of these articles, but as far as my own evidence will avail, it affords me great pleasure to comply with your request. In consequence of the panacea of Mr. Swaim having met with a more ready sale than many other similar remedies, (but with how much justice I do not pretend to say,) it has happened to me most frequently to have known this article administered. The diseases for which I have seen it given have been cases of cancer, scrofula, and bad ulcerations seated on various parts of the body; now for the cure of these complaints, I have known this preparation to be used for weeks, and months, and I do most conscientiously declare, that I have never known in a single instance a cure to be effected by it. That as an innoxious alterative it may have succeeded under circumstances where such remedies generally do succeed, particularly where active medicines have been pushed too far I can readily admit, but that it ever has effected a cure of either cancer or scrofula, under my own observation, diseases to which it is said to be particularly adapted, I certainly deny. With a view of explaining what I believe to be the [illegible] tendency of quack preparations, and any adventitious aid given to their use, I beg leave to mention the following case, which came under my notice in February last. Mr. A. B. applied to me at that time, to know whether I could do any thing for the relief of a very troublesome discharge attended at times with a good deal of pain, which issued from the urethra, and which he supposed to be a gleet in consequence of a gonorrhœa which he had some years before. Upon inquiring into the symptoms of this case, I had no doubt that the cause of them all was a structure of the urethra, and accordingly I passed a bougie into that canal, which confirmed my suspicions immediately, the cure was accomplished by the usual mode. During the course of treatment this person informed me that he had been under the care of several different empirics, and that he had expended a large sum of money in the purchase of a celebrated panacea. Upon my asking him how he could have committed so great a folly, he informed me that he was led to it by the respectable vouchers which he saw given to its proprietor; I soon satisfied him that this was not a case to which they considered the article applicable, and had to regret that they could not enable the public to discriminate between cases which they were of the opinion could or could not be benefited by its use. I have attended several cases in conjunction with Dr. Physick, of ulcerations and scrofula in which the panacea had been largely administered. The sentiments of Dr. Physick respecting the use of empirical preparations, are now I imagine, generally known; his opportunities of witnessing the result of their employment have been, perhaps, equal to those of most others; now it may seem a little singular, but it is at the same time strictly true, that the whole of his experience is decidedly unfavourable to the exhibition of all such articles, and he allows me publicly to declare, that he never has seen a single case of either scrofula or cancer, cured by the administration of panacea or catholicon, and that he entirely disapproves of their exhibition in any shape whatever.

(Signed) J. RANDOLPH.

Philadelphia, July, 1827.

Letter from Dr. Coates.

Such extensive mischief has resulted to the public, and more particularly to the poorer classes of the community, from the countenance injudiciously given to various empirical nostrums, by members of the medical profession, that it becomes the duty of every one who regards the proper interests of society, to expose, as far as possible, the fallacy of the evidence urged in favour of their *miraculous* powers. With this view, I tender you the following remarks—

Mr. Swaim, armed with a certificate, signed by Dr. WILLIAM PRICE, and another by SAMUEL MASON, the one at the time a Surgeon, and the other a former steward of the Pennsylvania Hospital, has asserted, that his Panacea received the sanction of the Surgeons of that Institution, and that its effects were attended with the happiest results in those cases in which it was employed.

The facts of the case are these. By the express desire of Dr. WILLIAM PRICE, the two managers then on duty permitted a trial of the Panacea, under the superintendance of Mr. Swaim.

This permission was necessary, on account of a law of the Hospital, which prohibited any practitioner from interfering with the treatment of the patients, unless he was regularly elected an officer of the institution; and, as the introduction of Mr. Swaim, did undoubtedly give great offence to some of Dr. PRICE's colleagues in office, the step could not have been taken without the sanction of the managers. But, in granting this sanction, those gentlemen transcended their prerogative, and encroached upon that of the board.

The remedy was employed regularly, in only two cases that I can recollect; and one other employed it after leaving the Hospital. The former, to whom the certificate of Dr. PRICE refers, were, Mrs. Tregomain, a woman of a scrofulous diathesis, affected with extensive ulceration of the hand and cheek, apparently resulting from disease of the periosteum; and Owen Laughlin—with necrosis of the upper jaw, on the left side.

In the absence of my senior colleague, Dr. T. H. RITCHIE, those patients fell properly to my care, as House-Surgeon, some time before their discharge; but, as I was unwilling to associate myself in any manner with Mr. Swaim, I took no charge of those cases, merely contenting myself with silently watching the progress of the disease.

That Mrs. Tregomain improved under the use of the Panacea, is certainly true, and that she left the house nearly well, is also true; but I can only account for the unqualified language of Dr. Price's certificate, by supposing, that his sanguine admiration of a remedy, which shortly after led him to Europe as its avowed disseminator, must have induced him to believe, too readily, and without sufficient examination, the apparent proofs of permanent cure, for I well recollect to have seen a *discharge from one of the ulcers on the cheek the very day of her quitting the Hospital.* Add to this, that Mrs. Tregomain assured me that her disease had been nearly cured at several different times, previous to her admission into the Hospital; and that, at the time of commencing the use of the Panacea, she had been for some time improving by the effect of other remedies; and we shall be inclined to doubt the very superior agency of the nostrum in this case.

This unfortunate woman went to Charleston or Savannah, with a professed, but illegal protector, who died there; and she subsequently destroyed herself by taking laudanum. I was informed by a gentleman who had received a letter from her landlord, during the inquiries growing out of the refusal of several spurious drafts of her companion, on a wealthy house in this city, that her despair was the result of her inability to gain a livelihood, *in consequence of the condition of her hand, which was "covered with sores."*

With regard to the case of Owen Laughlin, my recollection is clear, that I was astonished at the employment of the Panacea, in a case that must speedily terminate favourably by the powers of nature. The patient had a necrosed jaw, with the sequestrum loose. It came away in a short time, as might have been expected, and the patient recovered.

The same remedy was also employed in the case of a seaman, by the name of Anderson; but this patient was not placed under my eye, and I have no recollection of it.

Robert Ryan, to whom the certificate of Samuel Mason refers, was affected with necrosis, which destroyed nearly all the shaft of the bone; he generally enjoyed good health during the periods which elapsed between the removal of the sequestra; and at these times he officiated as an assistant in the surgical wards: so that the picture of misery which he is said to have suffered during the whole time of his residence in the Hospital, is certainly drawn in colours far too deep for nature. Robert suffered exceedingly at times, when a sequestrum was loosening rapidly, as occurred perhaps two or three times a year, during four or five years that I watched the case—at other times he was a gay and lively man, having no more pain to contend with, than is usual in necrosis. His last sequestrum came away while I was absent; but I have been informed, both by his physicians and himself, that, on this occasion the entire upper part of the dead shaft of the bone was removed, and Robert recovered his health with great rapidity. During this convalescence he commenced the use of the Panacea, and perhaps the most that can be said, is, that it did not retard the cure.

Thus it will be seen, that the Panacea has never been properly introduced into the Pennsylvania Hospital; and that the few cases in which it was employed were ill selected, and of doubtful result.

(Signed) R. COATES, M. D.

Letter from Dr. Griffith.

The only quack medicine alluded to in your circular of June last, of which I have been enabled to judge, is "Swaim's Panacea." This I have seen administered in several cases, generally without producing any beneficial effects. In one case, however, of obstinate and ill conditioned ulcers, it was certainly of use. Of its dangerous nature when taken without due attention, I met with a melancholy instance soon after its introduction. In 182–, I was called to a man, at that time residing in Blackberry Alley, said to be dying of a hæmorrhage. I found him discharging great quantities of blood from his mouth and nose, and threatened with suffocation from his inability to rise. The flow proceeded from large and deep ulcerations of the mouth, which implicated several small arteries. By the usual means, the hæmorrhage was arrested. On inquiry, I found that he had been afflicted with rheumatic pains, for some time, for which some friends had recommended Swaim's Panacea: he had taken about three or four bottles, when it produced a violent salivation, which ended in extensive sloughing of the jaws. He declared that he had taken no other medicine. Next day, I requested Dr. Hays to see him with me, which he did. The man remained in a tolerably comfortable situation for a day or two; when the hæmorrhage again occurred, and, before any assistance could be rendered, he sank under the discharge.

(Signed) R. EGLESFELD GRIFFITH, M. D.

Letter from Dr. Jackson.

The first knowledge I had of Swaim's Panacea, was in the winter of 1821-22. My younger brother, from an injury received in the ankle joint, had long been labouring under a chronic inflammation of its ligaments, and probably its cartilages; and which eventuated in anchylosis. A small sinus remained, from which was occasionally discharged a sero-puruloid fluid, never exceeding a few drops at a time.

A zealous partizan of the Panacea, became very urgent that my brother should give it a trial. Satisfied that no means could remedy the condition of the joint, and that time, with warm weather, to admit of exercise, was alone required to restore his general strength, I was opposed to the quackery that was so much desired. At this time, a young lad of this city, Master W., was taking the Panacea, for a disease of the hip-joint; and, it was asserted boldly, was recovering from its employment. In a few months after, however, he died. A man whose neck was covered with scars, said to proceed from ulcers cured by the Panacea, was brought to my brother and the family, as a specimen of its wondrous powers. These means created so powerful an impression on the minds of my brother and mother, that they became very solicitous to employ it; and, believing no harm would probably result from its use, I withdrew my opposition, and my brother commenced taking the Panacea. I examined the first bottle that was procured; and immediately pronounced it to be the syrup of Cuisinier, a remedy I had been accustomed to prepare, and prescribe in old cutaneous ulcerations, and syphiloid affections. My opinion was, however, attributed to professional prejudice.*

At this time, Mr. Swaim requested me to accompany him to visit a patient in Kensington, affected, as he said, with a cancer, and who was about to commence with his medicine—that I might be satisfied of its powers. This patient was Mrs. Hooker; whose case is detailed very imperfectly in Swaim's pamphlet of "Cases cured, &c." page 37; and of which a certificate was given by the late Dr. Knight.

This woman I found under a horrible salivation, brought on by an excessive use of mercury. She had been placed under this treatment by Dr. ——, of the Northern Liberties; in consequence of blotches and pimples appearing on the skin, succeeding to delivery. She had taken, according to her account, an immoderate quantity of pills, which appeared to me to contain corrosive sublimate.

At the time I saw her, the saliva was running in an incessant stream from her mouth. The fauces and gums were ulcerated, and a large ulcer existed on one of the feet. Her disease was clearly mercurial, and brought on by her attending physician.

---

* In my brother, no marked effect resulted from the Panacea at first. It was continued until he had taken six or eight bottles. While under its use, a slight cough came on that was attributed to cold: it grew worse; became unyielding; and finally, the unequivocal symptoms of tuberculous phthisis were unfolded. Early in the spring, the expectations that had been built on the amiable character, and promising talents of this youth, were blasted by his death. I have frequently reproached myself with consenting to the experimental quackery in his case; and have apprehended that the development of tubercles in the lungs, was the consequence of the irritation of the corrosive sublimate of the Panacea, in a constitution strongly disposed to scrofula.

I assured Mr. Swaim, he would find no difficulty in curing that case, and the first step towards it was throwing her box of pills into the fire: good nourishing diet, even without his Panacea, would complete the rest. The infant of this woman was emaciated, from the ill condition of its mother's milk; but I do not recollect that it had any ulcerations on its surface.

Returning from our visit to this patient, I told Mr. Swaim, I was satisfied his Panacea was the same as the syrup of Cuisinier; the mode of preparing which I mentioned to him: he turned round, and asked me if I "told that to the doctors."

The next case that fell under my notice, in which the Panacea had been employed, was that of a lady of this city, who sent for me on account of a violent ophthalmia, with which she had been attacked. Whilst examining the eye, I was struck with the mercurial fœtor of her breath, and inquired into its cause. She told me her mouth had become very sore, and the teeth were so tender she could scarcely eat; and I found, on examining the gums, she was salivated. This she insisted was impossible, as she had taken nothing but Swaim's Panacea: I assured her nothing was more likely, as I was satisfied the active principle was corrosive sublimate. Mr. Swaim called the same day to see his patient; and, when reproached for the salivation that had been induced, he declared it was produced by his medicine stirring up the old mercury in her system. This lady had not, however, for more than eight years, taken a single grain of mercury in any shape. Mr. Swaim took away the bottle of Panacea, though not half consumed, and replaced it with another.

Soon after my election as one of the physicians of the Alms-House, I gave to the apothecary of that establishment, Mr. Marks, the formula for preparing Cuisinier's syrup. It was immediately employed in some cases of cutaneous ulceration of long standing, and with great success. Since that period, it has been employed in that Institution; during which, not a bottle of Swaim's Panacea has been administered to the patients. In the Alms-House, I have frequently had patients under my charge, who had been treated ineffectually by Mr. Swaim, with his Panacea; and I have had several in private practice, in which it had proved wholly inefficacious. Dr. J. Rhea Barton has exhibited to me two patients, one of true scrofula; both of whom were promised, unhesitatingly, a cure from the Panacea, but whose disease became infinitely worse under the treatment, and were finally abandoned. One of them has since been entirely cured under the care of Dr. Barton.

(Signed) SAMUEL JACKSON, M. D.

Extract of a Letter from Dr. Emlen.

I have met with a great number in this city, and have heard of many others, who have taken the panaceas, catholicons, &c. but principally that called Swaim's Panacea; and of all the patients I have met with, who have used the last named medicine, I have only heard *one* out of the whole number say that he was benefited by its use.

The first patient who came under my notice, who used Swaim's Panacea, was H. C. an engraver, in Fifth street, near Race. I think it was in 1821. I visited him twice only, with a scrofulous tumour, when I received a note from him, stating he had called in other medical attendance by the solicitation of his brother, &c. A few weeks after, the said H. C. called on me, asked my pardon, and expressed great regret that he had yielded to others in employing a Dr. Swaim, and that he had taken seven bottles of his medicine, at five dollars a bottle, without the least benefit; when the said Dr. Swaim finding no improvement, had gone to the apothecary who had put up the medicine he had been using by my direction, and directed some of the very same, which the patient knew at once by its taste and appearance, and being disgusted with the bottles of molasses, and this stratagem of his doctor, he soon discharged him. This patient, after making what I considered a sufficient apology, I took under care again, and in a few weeks he was discharged well.

Another case was a slave of E. H. from Charleston, with a number of scrofulous tumours, and a troublesome cough, which I had no doubt was the result of incipient phthisis. She was placed under my care, but her mistress was informed by me that medical treatment was not likely to be of much service. She wished to try the Panacea of Swaim, of which she had heard and read so much in the cure of scrofula. I stated to her that I had seen it used in many cases of genuine scrofula, and not in any one instance with any benefit whatever. E. H. however, upon returning to Charleston, placed her slave upon the use of the Panacea, in the purchase of which she spent seventy dollars; and when she returned again to Philadelphia the ensuing summer, placed the slave under the immediate care of William Swaim, who continued his visits, and his bottles of molasses and corrosive sublimate, till the patient was brought under a profuse ptyalism, and the doctor ran away with his bottle, that she might not be tempted to take more. The mistress informed me after this she sent again and again for the run away doctor, who sent word as often, he would be there *directly*, but never came near his patient again, who sunk rapidly, and died immediately after arriving at Charleston in the autumn.

The next case I recollect was a boy in the Orphan Asylum, in Cherry street, with scrofulous tumours all over the body, who had been several years afflicted. Drs. Otto, Hewson, and James Rush, who were associated with me, had all had the boy under care; a bottle of Swaim's Panacea was bought, and the boy placed under its use. I stated I believed it would not be of service, and that I thought it a wasteful expenditure of the funds of the institute. He died before he finished one bottle.

The next was a poor woman of the name of C. T. who got her living by selling pennyworths of yeast, gingerbread, &c. in Cherry, just above Seventh street. This poor woman took the medicine for two years, for some ulceration of the throat, &c. and expended, as she declared to me, more than sixty dollars in the purchase of Swaim's Panacea, from the owner himself. She afterwards moved to Fayette street, where she died with the disease within a few months past. She informed me, before she died, that she told the said William Swaim again and again, when she visited him, during the two years, that it done her no good, but that he always insisted that the next and the next would cure it, till he exhausted her of all her funds, and she could go no longer. After she ceased taking it, and had stated to her friends she was worse, and that it did her no good, she declared to me that the said Swaim, who had stripped her of all her money, called upon her in Fayette street, and before he had even entered the house, commenced railing at her "*for telling it about that his medicine had done her no good.*"

The next case which came under my notice, was E. D. from Charleston, who is now under Swaim's care, and came on for the express purpose, notwithstanding she informed me that she received no advantage whatever from taking twelve bottles of his panacea, and she declared she "only wished she had thrown the money she paid for it in the street, that some one might have been benefited by it." This lady was at my house the last week, and stated she had suffered excruciating pain all the summer from the caustic applications of Swaim to her chin and lip—her under lip is entirely destroyed by his applications, the whole length, and she presents a horrible aspect. When asked if the disease was getting better, she replied "*she hoped so.*" This lady, as well as another from Maryland, both have been patients of Dr. Physick, as well as Mrs. E. of whom so much has been said, and it was at the recommendation of the last-named that they were induced to come on to this city, and placed themselves "under the care of the celebrated Dr. Swaim, who cured where Dr. Physick could not." It is reported about the city that both these ladies are nearly well

I could relate other cases, but they would occupy too much time of the committee. I have seen a number of poor sailors who applied for admission in the hospital after expending all the funds they had, in this and other panaceas. and a poor carter, who stated to me he had spent fifty dollars in Swaim's Panacea, for rheumatism, which done him no good whatever, and that his son had spent twenty-eight dollars in the same medicine.

(Signed) SAMUEL EMLEN, Jr.

September 26th, 1827.

Many other documents have been received, but we have not room at present for their insertion. An analysis of them will be found in the report of the committee.

These documents most conclusively prove:—

1st. That the Panacea of Mr. Swaim, *is composed of articles long in use and well known to the profession.*

2d. That at least one of these articles is of a most active nature, and its administration highly dangerous, and even productive of fatal effects, unless given with great caution, and its operation closely watched.

3d. That the Panacea of Mr. Swaim has been useful in a very limited number of diseases alone.

4th. That even in these affections it often fails to effect a cure.

5th. That cases which it has failed to relieve, have been cured by the articles of which the "Panacea" is composed, judiciously combined, and aided by other apppropriate medical treatment.

6th. That the certificates granted to Mr. Swaim by the medical men of this city, were given when their experience with the remedy was very limited: and that a more extensive trial with it has *not* confirmed the favourable impressions they at first entertained of its utility.

7th. That many of the cases supposed to have been perfectly cured by the "Panacea," were only temporarily relieved, and in others no benefit whatever was received from the use of that nostrum.

An Introductory Lecture to the Institutes of Medicine. By SAMUEL JACKSON, M. D. Assistant Lecturer to the Theory and Practice of Medicine and Clinical Medicine in the University of Pennsylvania.—This eloquent and interesting lecture has been published by the class. It presents a sketch of the subjects comprehended in the institutes of medicine; an attempt to prove that medicine, as a science, rests upon principles; that its improvement depends on their cultivation and accurate development; and that by no other mode can the treatment of disease be rendered safe and methodical.

MARTINET'S *Manual of Pathology.*—We are happy to announce that Messrs. Carey, Lea and Carey, have re-published this valuable little work. We have already expressed our sense of its merits, and will now add as further evidence of its value, that it has gone through two editions in France, and a like number in England, in less than one year.

System of Pharmacology.—JONATHAN A. ALLEN, M. D. Professor of Materia Medica and Pharmacy, proposes to publish "A System of Pharmacology; designed for the use of the Vermont Academy: and also as a Manual for the Practitioner of Medicine.

Journal des Sciences Naturelles de l'Amérique du Nord. Publié par XAVIER TESSIER, *ci-devant Editeur du Journal de Medecine de Québec.* Dr. Tessier, former editor of the Quebec Medical Journal, proposes to publish at New York, a periodical Journal in the French language under the above title: a volume of three hundred pages is to appear quarterly—subscription six dollars per annum

New Edition of Professor Chapman's Therapeutics.—Messrs. Carey, Lea and Carey, have recently published the fifth edition of the Elements of Therapeutics and Materia Medica. To which are prefixed two discourses on the History and Improvement of the Materia Medica, originally delivered as introductory lectures. By N. Chapman, M. D. Professor of the Institutes and Practice of Physic and Clinical Practice in the University of Pennsylvania. In two vols.

—

Lecture Introductory to the Course of Anatomy and Physiology, in Rutgers Medical College, delivered on Friday, Nov. 2, 1827. By John D. Godman, M. D. Professor of Anatomy and Physiology. Published by the class.—We had marked several extracts from this eloquent lecture for insertion, but we have space only for the following.

After observing that general anatomy is to anatomical science what chemistry is to the other branches of natural science, Dr. G. observes, "The researches of Bichat, led him to think that he could establish twenty-one elementary or generating textures, constituting all the peculiar organs. The labours of his successors, as we shall hereafter state more fully, have led to the adoption of other classifications, by which the number of elementary textures has been advantageously lessened.—These textures wherever found, are respectively governed by the same general laws, are possessed of the same susceptibilities, and in diseased conditions exhibit similar phenomena. Hence, we may even in the very inception of our subject obtain a glimpse of the pervading influence which such knowledge of the general laws governing the intimate organization of our bodies must exercise upon medical science. One of the greatest and most beneficial consequences of a proper acquaintance with General Anatomy, is the death-blow given to the notions so flattering to our ignorance, of specific and incurable diseases; and not less important, the termination of the science of bestowing upon symptoms, names expressive of some real entity, which is called the disease. When once we have learned the General Anatomy of the nervous systems of animal and organic life, the true character and actions of the vascular system, in its various modifications, we no longer waste our time in allowing morbid conditions to become established, that we may bestow names upon them, and apply an ordained or routine course of treatment; but, we trace the action of the offending cause to the part which originally suffered, and guided by the established laws of the healthy texture, we take the surest and speediest means of restoring that equilibrium which is essential to the performance of the vital functions. Under the influence of a proper knowledge of the textures composing our organs and their modes of vitality, we are secured from the folly of hoping for *remedies* or specific cures, for supposed specific diseases. We regard remedial agents solely as they are capable of operating changes in the general and special actions of the system —as they influence the great functions of digestion, circulation, and nutrition. This advantage is of the highest importance to our profession, as it leads us to occupy ourselves, not with vain attempts to discover remedies for given diseases, but to determine in what degree medicinal agents effect changes in specific textures, and in how far they are capable of impressing and controlling the functions of organic life.

"Perhaps the improvement of our profession, and the good of our race has been more injured by the prejudices entertained on the subject of diseases and remedies, than from any other cause. Not only did the search after remedies lead men from the true path, but such researches tended to the eventual destruction of inquiry by the total darkness into which they led, to say nothing of the extravagancies of doctrine which were from time to time sent forth.

"Until the period when the science of General Anatomy may be said to have commenced its existence our profession may be truly declared to have been destitute of fixed, rational principles, and fairly entitled to the appellation of a conjectural art. Without in the least wishing to detract from the merits of the great men who preceded this period, it is undeniably true, that their works are of comparatively slight value, for want of the principles which have since been deduced from the structure of textures and their dependencies of function. I know that some may feel tempted to exclaim against the idea that we should rashly judge those we have been taught to revere in Médicine: We may be told of the profound and accurate observations of the divine old man of Cos, the Father of Medicine; of Sydenham, the Hippocrates of England; of Boerhaave, no less an honour to human nature than the glory of the medical profession; of Hoffman; of Cullen; and our worthily celebrated countryman Rush; yet the truth need not be concealed, that it were better for the interests of mankind and the future character of the medical profession that all of these and a host of lesser medical writers should be blotted out forever than that the works of Bichat should have been withheld.* With no better guides than the old books we might go darkling along forever, gathering as we advanced a few unequivocal truths at the price of infinite losses of life and the endurance of innumerable sufferings; but with a science resting upon facts, and not merely of facts, but of such as establish the most universally operative principles, and explain the most complicated and apparently mysterious operations in nature, the condition to which Medicine may be perfected can scarcely be imagined unless by comparing what has taken place since the impulse of this science has been felt by our profession, with what previously existed. If proofs be demanded that these opinions are not mere enthusiasm—look at the bills of mortality since true views of structure and function have exploded the old doctrines of idiopathic fever; since dropsies have ceased to be regarded as original diseases; since the venereal has laid aside its supposed specific nature and ceased to require its specific remedy—since the name of consumption has ceased to be applied to all the affections of the lungs, and to most of those of other organs of the chest! Look at the modes of practice generally employed by such as are within reach of the improvements of the times although they are too frequently ignorant of the sources whence all their advantages flow, and every confirmation that can be desired for our positions will be found. It is from the establishment of true principles alone, that our profession is to hope for a continued and successively enlarging career of improvement, for however matters of fact may be valuable in themselves, it is only as they enable us to form, or tend to support some general or universal law or truth, that they deserve our especial regard."

NECROLOGY.

It is with extreme regret that we have to announce the death of our distinguished collaborator, the Hon. George Holcombe, M. D. a member of the House of Representatives of the United States, which took place at his late residence in Allentown, Monmouth County, New Jersey, on the 14th ultimo. Dr. Holcombe was eminent as a physician, and when released from the discharge of those honourable public duties which his fellow-citizens conferred upon him as evidence of the regard they entertained for his talents and integrity, enjoyed an extensive practice. His mind, though well stored with the learning and observation of his predecessors and contemporaries, relied less upon these adventitious supplies, than upon the application of its own fertile resources. Aided by these last qualifications, united to powers of quick perception and correct judgment, his practice was at once original, decisive, energetic, and successful. His useful qualifications were well set off by the talents he displayed for the ornamental branches of education, which in conjunction with great amiability of character and urbanity of manners, rendered him an agreeable associate, and an ornament to society.

---

* In saying this, we particularly refer to the direction and impulse given to the Medical mind, by the researches of this great man, whose writings may justly be considered to have the same influence upon Medicine as the writings of Bacon had upon general science. Though not containing in themselves the whole of what is necessary to science, yet possessing the germs of vast improvements and indicating the true course by which future investigators may advance until the desired perfection be attained.

INDEX TO VOLUME 1.

A.

Abscess of the liver, 219
———, pulmonary, 475.
Absorbents in fishes, 428.
Accidental heterologue tissues, 444.
Accouchement after the death of the mother, 468.
Acid, hydrocyanic, 206.
Aconitum napellus, poisoning by, 471.
Acupuncture, 222.
Allen's system of pharmacology, 490.
Amaurosis, 458.
Amputation without ligatures, 462.
——— of the neck of the uterus, 468.
Anatomical cabinet, 235.
Aneurism of the aorta, 200.
——— cured by compression, 461.
———, Mott's case of, 482.
Anomaly, 193.
Aorta, aneurism of, 200.
Apoplexy, pulmonary, 197.
Apyrectic diseases, 204.
Aqueous humour, membrane of, 215.
Arnold's case of paruria erratica, 49.
Arsenic, poisoning with sulphuret of, 251.
Arteries, inflammation of, 440.
Articular cartilages, 205.
Asdrubali, manuale clinico di obstetricia, notice of, 414.
Ascites treated by pressure, 21[illegible]
Asphyxia, treatment of, 211.
——— as a cause of death in small-pox, 444.
Asthma, 204.
Atropia and hyosciamine, 206.

B.

Bally's clinical report on fever, 434.
Baths, nitro-muriatic, 206.
Belladonna, 206, 207.
Bierkoffski's anatomisch chirurgische, notice of, 409.
Bile, analysis of, 473.
———, uses of, 431.
Bilobate uterus, 422.
Buzzi, sulla ottalmia pustolar-contagiosa, notice of, 416.
Black matter of melanosis, [illegible]
——— stools, 198.
——— vomitings, 233.
Bleeding in the cold stage of fevers, 207.
Blisters, serous fluid of, 234.
Blood, circulation of, 194.
Brazilian medical journal, 242.
Breschet on sanguineous tumours, 199.
Bright's Reports, notice of, 402.
Brinkle on sulphuric acid as a remedy for intemperance, 249.
Broussais on asthma, 204.

C.

Cæsarian section, 468, 470.
Calcium, chloride of, in purulent ophthalmia, 459.
Camphor in rheumatism, 207.
Cancer of the breast, 449.
——— of the cardia, 437.
——— of the rectum, 468.
———, seat of, 204.
Cantharides, poisoning by, 368.
Capsulæ renales, functions of, 40.
Cardia, cancer of, 437.
Carpenter on piperine, 110.
——— on rhubarbarine, 337.
Cartilages, articular, 205.
Cataract needle, 457.
Cervical vertebra, fracture of, 199.
Chapman's anomalous cases of dropsy, 161.
——— on jaundice, 65.
——— on the effect of mercury in producing hepatic disease, 476.
——— on the use of tobacco in cynanche trachealis, 477.
———'s Therapeutics, 491.
Chilblains, chloride of lime in, 222.
Chorea, 441.
Chronic diarrhœa, 215.
Chyle, 432.
Circulation of the blood, 194.
Civiale's operation, 464.
Clinical reports, Jackson's, 85. 267.
Clysters, nourishment by, 435.
Coates on delirium tremens, 249.
Cœcum, rupture of, 233.
Colica pictonum, 210.
———, paralysis after, 211.
Common iliac, ligature of, 156.
Conception with closure of the vagina, 435
Cornea, ossification of, 460.
Constipation, 194.
Contagious psoriasis, 198.
Croup, 456.
———, tobacco in, 477.
Cynanche parotidea, iodine in, 448.
——— laryngea, tracheotomy in, 220.

D.

Des Brus, de la non existence de la virus venerien, Review of, 374.
Deleons case of twins, 480.
Delirium tremens, 249.
Devergie, clinique de la maladie syphilitique, notice of, 189

Dewees on secale cornutum, 251.
Diabetes mellitus, 439, 457.
Dislocation of the os humeri, 242.
Dissection wound, 315.
——— injury from, 460.
Dropsy, anomalous cases of, 161.
Dumbness, periodical, 193.
Dutrochet on vital motion, 423.
Dysentery, ipecacuanha in, 452.
Dzondi, neune zuverlassige, &c. notice of, 185.

E.

Eclectic dispensatory, 280.
Emerson's medical statistics, 116.
Emphysema, 228.
Empyema, 227.
Endemic fever of Montgomery county, Al. 77.
Epidemic yellow fever, 243.
Epilepsy, prussiate of iron in, 457.
Ergot, Dewees on, 251.
Erysipelas, 433.
Excision of carious joints, 223.
Extremities, swelling of, 197.
Eye, deep-seated inflammation of, 216.

F.

Ferussac's new work, 234.
Fever, 434.
——— intermittent, 207.
Fishes, absorbents in, 428.
Fistula, 241, 467.
Fohmann on the absorbents, 428.
Fracture of cervical vertebra, 199.
——— ununited, treated by pressure, 218.
Froriep, Chirurgische, &c. notice of, 188.

G.

Gangrene of the lung, 195.
Gastro-intestinal mucous membrane, 9.
Gastric juice, 429.
Gendrin, histoire anatomique des inflammations, notice of, 411.
Gibson's Surgery, 250.
Glossitis, 213, 219, 448.
Godman's case of irritation of the tarsi, 241.
——— of dissection wound. 315.
——— fact connected with the physiology of vision, 163.
Gums of children, phagedenic ulceration of, 451.
Gunshot wound, 332.
Guthrie's operative surgery of the eye, notice of, 182.

H.

Heart diseases, 439, 440, 441, 442, 443.
Henke's lehrbuch der gerichtlichen medicin, notice of, 189.
Hepatic affections, 476.
Hermaphroditism, spurious, 421.
Hernia, 220.
Herpes, 206.
Holcombe's case of tetanus, 477.
Holcombe, obituary notice of, 492.
Horner on gastro-intestinal mucous membrane, 9.
——— on some points of pathology, 265.
———'s bandage roller, 479.
Hosack on the removal of the tonsils, 311.
Hunger, death from, 472.
Hydatids of the uterus, 240. 469.
Hydrencephalus, Kopp on, 455.
Hydro-cyanic acid, 206. 230.

I.

Icterus, Chapman on, 65.
Inanition, death from, 472.
Incisions in glossitis. 219.
Incontinence of urine, 206.
Inflammation, propagation of, 197.
——— of the membrane of the aqueous humour, 215.
Insanity, 475.
Intemperance, sulphuric acid in, 219.
Internal iliac, ligature of, 304.
Intestines, wounds of, 467.
Iodine in cynanche parotidea, 448.
Ipecacuanha in dysentery, 452.
Iritis, chronic, 215.
Iron, prussiate of, in epilepsy, 451.
——— muriate of, in softening of the stomach, 452.
Ive's case of poisoning by cantharides. 368.

J.

Jacob's cataract needle, 457.
——— on a production resembling a tail, 192.
Jackson's appointment 250.
——— clinical reports, 85. 267.
——— introductory lecture, 490.
Jackson on mercurial inhalations, 319
Jaundice, Chapman on, 65.
Joints, preternatural, 219. 222.
——— excision of carious, 223.

K.

Kopp on atropia and hyosciamine, 206.
——— hydrencephalus, 455.

L.

Laennec, traite l'auscultation mediate, notice of, 413.
Larynx, fistulous opening into, 467.
Lehman's case of voluntary dislocation, 243.
Ligatures, 212. 462.
Lime, chloride of, 222. 459.
Litmus, its fallacy as a test, 473.
Liver, abscess of, 218
——— nitro-muriatic acid baths in chronic enlargements of, 206.
Lucas on the medical topography and epidemic fevers of Montgomery County, Alabama, 77.
Lung, gangrene of, 195.
Lupi, encephali anatomica descriptio, notice of, 418.
Lymph, Moultrie on the uses of, 344
Lymphatic system, 422.
Lithotomy, 228. 468

M.
Madar, medical properties of, 445.
Magill's case of hydatids of the uterus, 240.
Martinet's manual of pathology, 188 490.
Medical statistics of Philadelphia, 116.
———————, 475
Medical topography of Montgomery County, Alabama, 77.
Medicines applied by the skin, 446.
Membrana pupillaris, 192.
Mercury, effect in producing hepatic disease, 476.
———, proto-nitrate of, 445.
Mercurial frictions, 214.
——— inhalations, 319.
Metastasis of erysipelas, 433.
——————— rheumatism, 440.
Metaxa replica a M[illegible], notice of, 419.
Monett on the yellow fever of Washington, Miss 243.
Moore on volatile alkali in bites of venomous snakes, 341.
Monstrosity, causes of, 431.
Mortality, changes which the laws have undergone, 235.
Mott's case of ligature of common iliac, 156.
——————— aneurism, 482.
Moultrie on the lymph, 344.
Mucous membranes, 9. 191.
N.
Nævi materni, 222.
Nerves, structure of, 421.
New-born children, resuscitation of, 228.
New York medical society's report on secret remedies, 248.
Nitric acid, test for, 472.
Nitro-muriatic acid baths, 206.
Nostrums, 218 483.
Nux vomica, 205.
O.
Old medical writings, new edition of, 234.
Ophthalmia, 459.
P.
Parotid gland, extirpation of, 292.
Paruria erratica, Arnold's case of, 49.
Pendleton on superfœtation, 306.
Periodical apyretic diseases, 204.
——— dumbness, 193.
Periostitis, 460.
Peritonitis, puerperal, 214.
Pharmaceutical school of St. Petersburgh, 474.
Philadelphia, medical statistics of, 166.
————, medical society's report, 483.
Phosphorus, poisoning with, 232.
Physick's instrument for truncation of the uvula and excision of the tonsils, 262.
Piperine, Carpenter on, 110.
Placenta, its connexions with the uterus, 193
Poisoned wounds, treatment of, 212.
Poisoning with monkshood, 471.
——————— phosphorus, 232.
——————— sulphuret of antimony, 231.
Pomegranate as a remedy for tænia, 207.
Powell's case of excision of part of the spleen, 481.
Potass, bichromate of, 445.
Pregnancy, vomiting during, 469.
Pressure in ununited fracture, 218.
Proudfoot's case of fistula communicating with the bladder, 241.
Pulmonary abscess, 475.
——— apoplexy, 197.
Pupil, action of belladonna on, 207.
Q.
Quarantine regulations of the United States, review of, 166
Quinine, sulphate of, 448.
R.
Rectum, cancer of, 468.
Resuscitation of new-born children, 228.
Rheine, 472.
Rheumatic paralysis, 206.
Rheumatism of the temporal muscles, 199
——— camphor in, 207.
——— treatment of, by bandaging, 451.
Rhubarbarine, Carpenter on, 337.
Rossi's case of conception with closure of the vagina, 435.
Rupture of the aorta, 201.
——— bladder, 472.
——— cœcum, 253.
S.
Sanguineous tumours, 199.
Scarlatina, belladonna in, 208.
Sciatica, acupuncture in, 222.
Schreger, Grundriss, &c. notice, 414.
Seton in preternatural joints, 219, 222.
Secale cornutum, Dewees on, 252.
Secret remedies, 248, 483.
Skin, diseases of, 208.
Sloughing ulceration of the mouth, 211.
Small-pox after vaccination, 203.
Snake-bites, volatile alkali in, 341
Soda, chloride of, in tetter, 452.
Speranza's clinical reports, 234.
Sternum, fracture of, 444.
Stomach, softening of, 452.
——— vascular appearance of, 191.
Stone, operations for, 461, 464.
Stools, black, 198.
——— whitish, 198.
Strychnine, in paralysis after colica pictonum, 211.
Styptics, 446.
Suckling, injurious effect from protracted, 199.
Suicide, 471.
Sutures, 461.
Superfœtation, case of, 433.
——— Pendleton on, 306.
T.
Tail, production resembling, 192.
Tarsi, irritation of, 241.
Temporal muscles, rheumatism of, 199
Tessier's Journal, 490.

Teniæ, remedy for, 207.
Tetanus, arsenic in, 177.
——— remedies for, 461.
——— treatment of, 217.
Tetter, chloride of soda in, 452.
Tiedemann and Gmelin on the bile, 431.
——————— on the chyle, 432.
——————— on the gastric juice, 429.
Tiedemann on the membrana pupillaris, 192.
Tobacco in croup, 477.
——— stupes in colica pictonum, 210.
Tongue, inflammation of, 259, 448.
Tonsils, instrument for extirpation of, 262.
——— different modes of removing, 311.
Tracheotomy, 220.
Transfusion in uterine hæmorrhage, 229.
Tumours, sanguineous, 199.
Turner on the detection of antimony, 230.
Twins, Delcon's case of, 480.

U.

Urethritis, 204.
Urinary discharge, vicarious, 245.
Uterine hæmorrhage, transfusion in, 229.
Uterus, amputation of the neck of, 468.
——— hydatids of, 240, 469.
Uvula, case of elongation of, 262.
———, instrument for truncation of, 262.

V.

Vaccination repeated upon the same persons, 478.
Vaccination, small-pox after, 205.
Varioloid at Berlin, 474.
Vanuxem on the ultimate principles of chemistry, &c. review of, 397.
Veins, pulsation of, 194.
Vertebra, fracture of, 199.
Vicarious urinary discharge, 245.
Virus Venereum, Des Brus on, review of, 374.
Vision, anomalies of, 163.
Vital motion, Dutrochet on, 423.
Vitry's case of emphysema, 228.
Volatile alkali in bites of poisonous snakes, 341.
Voluntary dislocation, 242.
Vomiting during pregnancy, 469.

W.

Washington's case of gunshot wound, 352.
White's case of ligature of the internal iliac, 304
Whitish stools, 198.
Wounds received in dissection, 315.
——— of the intestines, 467.
———, sutures in, 461.
——— of the trachea and œsophagus, 462.

Y.

Yellow fever, epidemic, of Washington, Mis. 243.
Yellowly on the vascular appearance of the stomach, 191.

ERRATA.

Page 37, line 13 from the top, for "*coast*," read *costa*.
119, " 4 " bottom, for "*Table II.*" read *Table I.*
138, " 12 " bottom, for "*males*," read *females*, and for "*females*," read *males*.
249, " 28 " bottom, insert *not*, before "*to*."
300, " 13 " top, for "*those organs*," read *that organ*.
413, " 3 " bottom, for "*physiological*," read *philosophical*.
415, " 16 " top, for "*peltinee*," read *pettinee*.

TO READERS AND CORRESPONDENTS.

We have received from Dr. J. Moore, of Scrogy, Miss. some interesting cases, evincing the efficacy of the Volatile Alkali in the Bites of Venomous Snakes; we had intended to insert the communication in the present number, but could not prepare in time some observations which we wish should accompany it—it shall appear in our next.

Drs. Ives and Pendleton's papers also in our next. We regret that the late period at which arrangements were made, has rendered it impossible for our distant collaborators to furnish their quota of materials in time for the present number.

We have received a charge delivered to the Graduates of a Medical School, and have read it with much gratification; it contains good advice, and sound ethical precepts, and we should be much pleased to see it in print, but it would be inconsistent with the plan of this Journal to give it an insertion.

Our Review of Des Brus is unavoidably postponed till our next.

A friend, during a recent visit to Europe, has negociated for us, exchanges with the principal Italian and German Journals—these have been forwarded, and we expect to receive them shortly. We are indebted to the same friend for the loan of several Italian Journals; in our Periscope will be found every thing interesting, that they contain.

We are happy to announce that Drs. Leo Wolf and Mæhring, two talented German physicians, who now reside here, and who are in correspondence with the most distinguished medical men in Germany, will co-operate with us in furnishing notices of every thing new and interesting in medicine that may be published in that country. We are indebted to these gentlemen for many new German Medical books, several of which we have noticed in this number, and will make use of others hereafter.

We have received the following publications:—

Journal des Progrès des Sciences et Institutions Médicales en Europe, en Amerique, &c. Vol. III. (in exchange.)

Journal Universel des Sciences Médicales, Juin, (in exchange.)

Annales de la Médecine Physiologique. Par F. J. V. Broussais. Janvier. Février, Mars, Avril, Mai, Juin, Juillet, 1827, (in exchange.)

The London Medical and Physical Journal, edited by Roderick Macleod, M. D. for July, August, and September, 1827, (in exchange.)

The Edinburgh Medical and Surgical Journal, July, 1827, (in exchange.)

The London Medical Repository and Review, July, August, and September, 1827, (in exchange.)

Gazette of Health, edited by Richard Reece, January to July, 1827—seven numbers, (from the editor.)

The Medico-Chirurgical Review, edited by James Johnson, M. D. July, 1827, (in exchange.)

Medical Statistics; or a comparative view of the mortality in New York, Philadelphia, Baltimore, and Boston, for a series of years, &c. By N. Niles, Junr. M. D. and J. D. Russ, M. D. (from the editors.)

The Western Medical and Physical Journal, Original and Eclectic. Edited by Daniel Drake, M. D. and Guy W. Wright, M. D. June, July, and August, 1827, (in exchange.)

Biblioteca Italiana, 1825–6. Milan, (twenty-four numbers.)

Opuscoli Scientifici. Bologna, (forty-two numbers.)

Dublin Hospital Reports, Vol. IV.

Bulletin des Sciences Medicales, May, 1827, (in exchange.)

Revue Encyclopedique, Juin et Juillet, 1827, (in exchange.)

Lectures on the Operative Surgery of the Eye. By G. I. Guthrie, second edition, London, 1827.

Malaria: an Essay on the Production and Propagation of this Poison, and on the Nature and Localities of the places in which it is produced. By John Macculloch, M. D., F. R. S., &c. London, 1827, pp. 480.

A Treatise on the Nature and Cure of Rheumatism, with Observations on Rheumatic Neuralgia and on Spasmodic Neuralgia, or Tic Doloreux. By Charles Scudamore, M. D., F. R. S., London, 1827, pp. 589.

Manual of Pathology. By L. Martinet, D. M. P. Translated by Jones Quain, A. B., London, 1826, pp. 310.

Reports of the Medical Society of the City of New York on Nostrums or Secret Remedies, Part I. Published by order of the Society, under the direction of the Committee on Quack Remedies. New York, 1827, pp. 52, (from the Society.)

Reply to the "Additional Strictures," contained in the first number of the Quarterly Medical Review, on the Principles of Dental Surgery, &c. By Leonard Koecker, M. D. Surgeon Dentist, &c. London, 1827, (from the author.)

Magazin der ausländischen Literatur der gesammten Heilkunde, und Arbeiten der Aertzlichen-Vereins zu Hamburg; herausgegeben von Dr. G. H. Gerson und Dr. Nikol Heinrich Julius. May and June, 1827, (in exchange.)

Notizen aus dem Gebiete der natur und Heilkunde gesammelt und mitgetheilt. Von Ludwig, Fr. von Froriep, 1826, (in exchange.)

North American Medical and Surgical Journal, for October, 1827, (in exchange.)

Nuovo Giornali di Literati et Scienze, Pisa, (in exchange.)

The Eclectic and General Dispensatory: comprehending a system of pharmacy, materia medica, the formulæ of the London, Edinburgh, and Dublin Pharmacopœias, prescriptions of many eminent physicians, and receipts for the most common empyrical medicines; collated from the best authorities. By an American Physician. Philadelphia, Towar and Hogan, 1827, pp. 627, 7 plates, (from the publishers.)

Authors of new medical books, desirous of having them reviewed or noticed in this Journal at the earliest opportunity, are invited to transmit us a copy as soon after publication as convenient, when they will receive prompt attention. Under ordinary circumstances, very considerable delay is caused by the circuitous routes through which they reach us.

Papers intended for publication, should be sent as early after the appearance of the Journal as possible, in order to be in time for the ensuing number. Such communications should be addressed to "Carey, Lea and Carey, Philadelphia, for the editors of the American Journal of the Medical Sciences." All letters on the *business* of the Journal to be addressed exclusively to the publishers.

CONTENTS.

ORIGINAL COMMUNICATIONS.

ESSAYS.

ART. PAGE

I. Inquiries into the Healthy and Diseased Appearances of the Mucous Membrane of the Stomach and Intestines. By W. E. Horner, M. D. Adjunct Professor of Anatomy in the University of Pennsylvania, 9

II. On the Functions of the Capsulæ Renales. By John Redman Coxe, M. D. Professor of Materia Medica and Pharmacy in the University of Pennsylvania, - - - - - - - - - - - - 40

III. Case of Paruria Erratica, or Uroplania. By Salmon A. Arnold, M. D. of Providence, R. I. - - - - - - - - - - - 49

IV. Thoughts on the Pathology and Treatment of Icterus or Jaundice. By N. Chapman, M. D. - - - - - - - - - - - - 65

V. Observations on the Medical Topography and Endemic Fever of Montgomery County, Alabama. By Charles S. Lucas, M. D. of Alabama, 78

VI. Clinical Reports of Cases treated in the Infirmary of the Alms-House of the City and County of Philadelphia. By Samuel Jackson, M. D. one of the attending Physicians, - - - - - - - - - - 85

VII. Observations on Piperine, with the Formula for its Preparation, &c. By George W. Carpenter, of Philadelphia, - - - - - - 110

VIII. Medical Statistics; being a Series of Tables, showing the Mortality in Philadelphia, and its immediate Causes, during a period of twenty years. By Gouverneur Emerson, M. D. - - - - - - - - 116

IX. Successful Ligature of the Common Iliac Artery. By Valentine Mott, M. D. Professor of Surgery in Rutgers Medical College, New York, 156

X. Notices of some Anomalous Cases of Dropsy. By N. Chapman, M. D. 161

XI. Note of an interesting fact connected with the Physiology of Vision. By John D. Godman, M. D. - - - - - - - - 163

REVIEW.

XII. An Act for establishing a Health Office, and to secure the City and Port of Philadelphia from the introduction of Pestilential and Contagious Diseases, and for other purposes, passed January 29th, 1818, with its supplements of the years 1821, 1824, 1826, 1827.

An Act to provide against Infectious and Pestilential Diseases, passed March 21st, 1823. New York.

An ordinance to preserve the Health of the City of Baltimore, and for the due performance of Quarantine at the Port of Baltimore. 24th March, 1826.

City of Boston. An Ordinance Establishing and Regulating the Quarantine of Vessels, &c Dec 25, 1826. - 16[illegible]

BIBLIOGRAPHICAL NOTICES.

1. Lectures on the Operative Surgery of the Eye; or, an Historical and Critical Inquiry into the Methods recommended for the cure of Cataract, for the Formation of an Artificial Pupil, &c. &c. &c. containing a new method of Operating for Cataract by extraction, which obviates all the difficulties and dangers hitherto attendant upon that operation being the substance of that part of the author's Course of Lectures on the Principles and Practice of Surgery, which relates to the operations on that organ. By G. J. Guthrie, Esq. Second edition, with seven Explanatory Plates. London, 1827, pp. 554 - - - - - - - 18.

2. Neue Nuverlässige Heil-art der Lustseuche in allen ihren Formen; bekannt gemacht, von Karl Heinrich Dzondi, Professor an der Universität zu Halle, mit zwei Tafeln in Steindruck. Halle, 1826, 8vo. pp. 120 18

3. Manual of Pathology, containing the Symptoms, Diagnosis, and Morbid Characters of Diseases: together with an Exposition of the different methods of Examination applicable to Affections of the Head, Chest, and Abdomen. By L. Martinet, D. M. P. Resident Physician of the Hotel Dieu. Translated, with notes and additions, by Jones Quain, A B. Demonstrator of Anatomy at the Medical School, Aldersgate-street, London, 1826, pp. 310 - - - - - - - - - 18

[illegible] Chirurgische Kupfertafeln, eine auserlesene Sammlung der noethigsten Abbildungen von äusserlich sichtbaren Krankheitsformen: u. s. f. Zum gebrauch für praktische Chirurgen. Von L. F. V. Froriep, M. D. &c. 4to. Weimar - - - - - - - - - - - - -

5. Lehrbuch der gerichtlichen Medicin. Zum Behuf akademischer Vorlesungen; und zum Gebrauch für gerichtliche Aerzte und Rechtsgelehrte entworfen. Von Adolph Henke, M. D. &c. Berlin, 8vo. pp. 471. 1827 - - - - - - - - - - - - - - 18

6. Clinique de la Maladie Syphilitique. Par M. M. Devergie, D. M. P. et G. Chirurgien-major Démonstrateur a l'Hopital Militaire d'Instruction du Val-de-Grace, Professor d'Anatomie et d'Chirurgie, &c. Enrichie d'Observations Communiquées par Messieurs C[illegible]rier, oncle; Cullerier, nevue; Bard, Gama, Desruelles, &c. &c. avec Atlas Colorié. Paris, 4to. - - - - - - - - - - - - -

QUARTERLY PERISCOPE.

FOREIGN INTELLIGENCE.

Anatomy.

Page.
1. On the Vascular Appearance of the Human Stomach, which is frequently mistaken for inflammation of that Organ - 191
2. Tiedemann on the Membrana Pupillaris - - - - 192
3. Account of a Remarkable Production resembling a Tail - *ib.*
4. Anatomical and Physiological considerations on the connexion of the Placenta with the Uterus, On the Vascular Communications between the two Organs, and the mode of Circulation of the fluids - - - - - 193

Physiology.

5. Anomaly - - - - - 193
6. Periodical Dumbness - - *ib.*
7. Circulation of the Blood - 194
8. Case of Extraordinary Constipation - - - - - 194
9. Pulsation in the Veins - *ib.*

Pathology.

10. Case of Gangrene of the Lung, Dilation of the Bronchial Tubes; Cavity in the Right Lung; Bronchitis - - - - - 195
11. Swelling of the Extremities 197
12. Pulmonary Apoplexy - *ib.*
13. Propagation of Inflammation by Contiguity - - - *ib.*
14. Whitish Stools - - 198
15. Black or very Dark Stools *ib.*
16. Contagious Psoriasis *ib.*
17. Rheumatism of the Temporal Muscles - - - - - 199
18. Fracture of a Cervical Vertebra by Muscular Contraction *ib.*
19. Injurious Effects produced in Children by Protracted Suckling - - - - - 199
20. On Sanguineous Tumours of an Equivocal Character, which appear to be Aneurisms of the Arteries of Bones - - *ib.*
21. Aneurisms of the Aorta - 200
22. Rupture of the Aorta, without Aneurism - - - 201
23. Small-pox after Vaccination 203
24. Asthma - - - - 204
25. Seat of Cancer - - - *ib.*
26. Urethritis - - - *ib.*
27. Periodical Apyrectic Diseases *ib.*
28. Destruction of Articulating Cartilages - - - - 205

Materia Medica.

29. Hydrocianic Acid - - 206
30. Atropia and Hyosciamine *ib.*
31. Nitro-Muriatic Acid Baths *ib.*
32. Belladonna in Scarlatina - *ib.*
33. Alcoholic Extract of Nux Vomica in Rheumatic Paralysis, and in the incontinence of Urine in Children - - - 206
34. Action of Belladonna on the Pupil - - - - - 207
35. Camphor in Rheumatism *ib.*
36. Pomegranate as a Remedy for Teniæ - - - - *ib.*

Practice of Medicine.

37. Bleeding in the Cold Stage of Intermittent Fever - - 207
38. Diseases of the Skin - 208
39. Colica Pictonum - - 210
40. Paralysis after Colica Pictonum 211
41. Treatment of Sloughing Ulceration of the Mouth, produced by Mercury - - - - 211
42. Treatment of Drowning and other Varieties of Asphyxia *ib.*

PAGE.
43. On the Treatment of Poisoned Wounds by Ligatures round the Limb - - - - 212
44. Ascites Treated by graduated Pressure - - - - - ib.
PAGE.
45. Idiopathic Glossitis - - 213
46. Chronic Diarrhœa - - ib.
47. Mercurial Frictions in Puerperal Peritonitis - - - - 214

OPHTHALMOLOGY.

48. On the Inflammation of the Membrane of the Aqueous Humour - - - - - - 215
49. Observations on the Inflammation of the Capsule of the Aqueous Humour, Chronic Iritis following the operation of Keratonyxis, &c. - - ib.
50. Deep-seated Inflammation of the Eye - - - - - 216
51. On the Artificial and Accidental Evacuation of the Anterior Chamber of the Eye - ib
52. Hypopion - - - ib

SURGERY.

53. On the Treatment of Tetanus 217
54. Abscess of the Liver - 218
55. Case of Ununited Fracture of the Arm, successfully treated by Pressure - - - - - ib.
56. Case of Inflammation of the Tongue cured by Incisions 219
57. Case of Cynanche Laryngea, in which the Operation of Tracheotomy was Successfully Performed - - - 220
58. Singular Variety of Hernia, treated by B. C. Brodie, Esq. 221
59. Chloride of Soda and Lime in Chilblains - - - - - 222
60. Extirpation of the Parotid Gland - - - - - ib.
61. Acupuncture - - - - ib.
62. Seton in Preternatural Joints ib.
63. Nævi Materni - - - - ib.
64. Excision of Carious Joints 223
65. Empyema - - - - 227
66. Extirpation of the Parotid Gland - - - - - ib.
67. Lithotomy - - - - 228
68. Emphysema - - - - ib.

MIDWIFERY.

69. Resuscitation of apparently Still-Born Children - - 228
70. Successful Case of Tranfusion in Uterine Hæmorrhage - 229

MEDICAL JURISPRUDENCE.

71. On the detection of Hydrocyanic Acid in the Bodies of Animals poisoned by it - - 230
72. On the detection of Antimony in Mixed Fluids - - ib.
73. On Poisoning with the Sulphurets of Arsenic - - - 231
74. Poisoning by Phosphorus 232
75. Rupture of the Cæcum - 233

CHEMISTRY.

76. On the Composition of certain Black Vomitings, and their Analogy with the Black Matter of Melanosis - - - - - 233
77. Chemical Analysis of the Serous Fluid of a Blister - 234

MISCELLANEOUS.

78. Speranza's Clinical Reports 224
79. Baron de Ferussac's new work - - - - - ib.
80. New Editions of the Old Medical Writings - - - ib.
81. Anatomical Cabinet of the University of Moscow - 235
82. On the Changes which the laws of Mortality have undergone in Europe within the last half century, or from 1775 to 1825 - - - - - 235

AMERICAN INTELLIGENCE.

Page.

Case of Hydatids of the Uterus, successfully treated by the Ergot, by W. D. Macgill, M. D. of Hagerstown, Maryland, communicated in a letter, from Mr. J. W. Anderson, to Dr. Dewees - - - - - 240

Note of a Case of Fistula in the Lumbar Region, communicating with the Bladder. By L. Proudfoot, M. D. - - 241

Notice of a Case of Irritation of the Tarsi, caused by Pediculus Pubis. By J. D. Godman, M. D. *ib.*

Case of voluntary Dislocation of the Os Humeri. By George F. Lehman, M. D. - - 242

Page.

Brazilian Medical Journal - 242

On the Epidemic Yellow Fever of Washington, Mississippi. By John W. Monette, M. D. 243

Cases of Vicarious Urinary Discharge. By Isaac Senter, M. D. 245

Nostrums or Secret Remedies 248

Sulphuric Acid as a Cure for Intemperance - - - 249

On Delirium Tremens. By B. H. Coates, M. D - - *ib*

Appointment of assistant Lecturer on the Institutes and Practice of Physic, and Clinical Medicine in the University of Pennsylvania 250

Gibson's Surgery - - *ib.*

New Dispensatory - - *ib.*